MERIDIAN™
YACHTS

408 MOTORYACHT OWNER'S MANUAL

Date of Purchase ______________________________

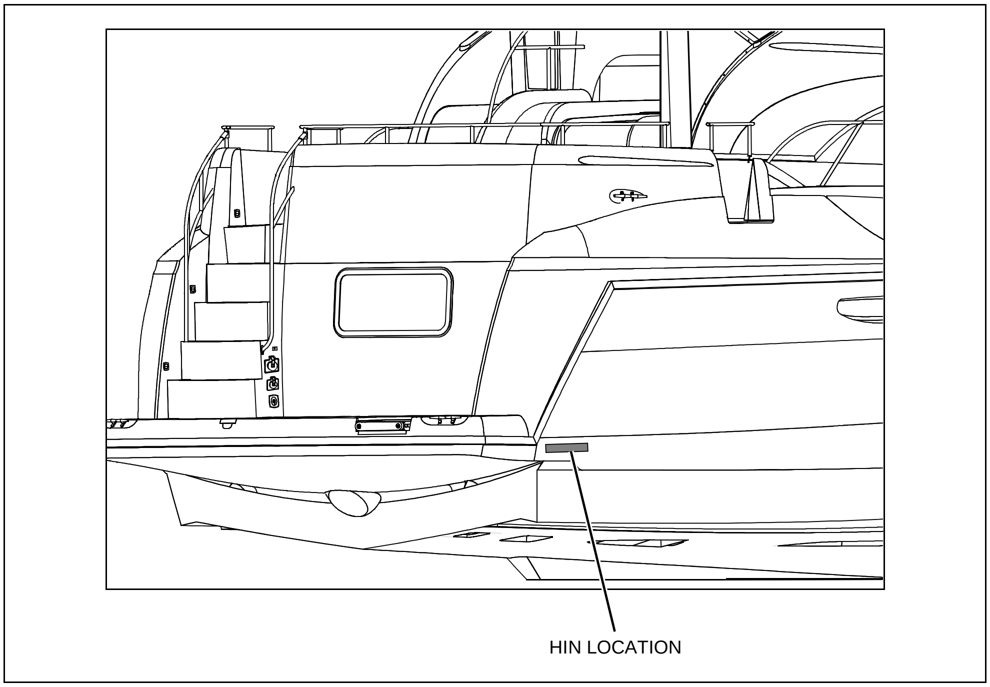
Port Engine Serial Number: ______________________________

Starboard Engine Serial Number: ______________________________

Hull Identification Number: ______________________________

Hull Identification Number

- The Hull Identification Number (HIN) is located on the starboard side of the transom.
- Record the HIN (and the engine serial numbers) in the space provided above.
- Refer to the HIN in any correspondence or orders.



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All Meridian products meet or exceed USCG (United States Coast Guard) and/or NMMA (National Marine Manufacturer's Association) construction standards. Manufactured with 1,1,1 Trichloroethane, a substance which harms public health and environment during the manufacturing process by destroying ozone in the upper atmosphere.

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Hazard Boxes & Symbols

The hazard boxes and symbols shown below are used throughout this manual to call attention to potentially dangerous situations which could lead to either personal injury or product damage. **Read *ALL* warnings carefully and follow *ALL* safety instructions.**

⚠ DANGER!

This box alerts you to immediate hazards which *WILL* cause severe personal injury or death if the warning is ignored.

⚠ WARNING!

This box alerts you to hazards or unsafe practices which *COULD* result in severe personal injury or death if the warning is ignored.

⚠ CAUTION

This box alerts you to hazards or unsafe practices which *COULD* result in minor personal injury or cause product or property damage if the warning is ignored.

NOTICE

This box calls attention to installation, operation or maintenance information, which is important to proper operation but is *not* hazard related.

FIRE HAZARD!

EXPLOSION HAZARD!

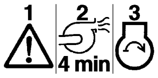
NO OPEN FLAME!

ELECTRICAL HAZARD!

HOT HAZARD!

FALLING HAZARD!

ROTATING PROPELLER HAZARD!



RUN BILGE BLOWERS FOR 4 MINUTES!

CO
DANGER
CARBON MONOXIDE

CO POISONING HAZARD!

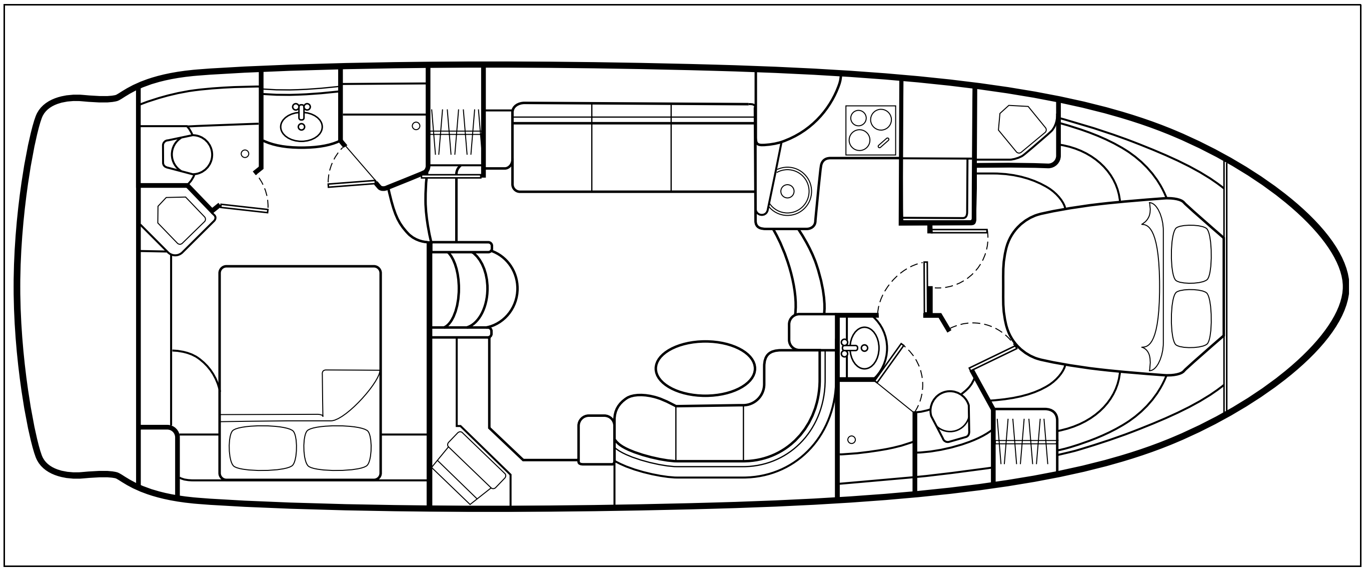
Chapter 1: Welcome Aboard!

- This *Owner's Manual* provides information about your yacht that is ***not*** covered in the *Cruiser & Yacht Owner's Manual Supplement*.
- ***Before*** using your yacht, study this *Owner's Manual*, the *Cruiser & Yacht Owner's Manual Supplement,* and ***all*** engine and accessory literature carefully.
- Keep this *Owner's Manual* and the *Cruiser & Yacht Owner's Manual Supplement* on your yacht in a secure, yet readily available place.

Dimensions and Tank Capacities

Overall Length	Bridge Clearance	Beam	Draft (Hull)	Draft (Maximum)	Fuel Capacity (gal.)	Freshwater Capacity (gal.)	Waste Holding Tank Capacity (gal.)
42'	16' 9"	14' 3"	2' 8"	3' 10"	330 Gallons	90 Gallons	55 Gallons

Layout View



Dealer Service

- Your dealer is your key to service.
- Ask your dealer to explain ***all*** systems ***before*** taking delivery of your yacht.
- Contact your dealer if you have any questions or problems with your new yacht.
- If your dealer cannot help, call our customer service hotline: 360-403-2198 or send us a FAX: 360-403-1158.
- Buy replacement parts from any authorized Meridian dealer.

Warranty Information

- Meridian offers a Limited Warranty on each new Meridian purchased through an authorized Meridian dealer.
- A copy of the Limited Warranty was included in your owner's packet.
- If you did not receive a copy of the Limited Warranty, please contact your Meridian dealer or call 360-403-2198 for a copy.

Boating Experience

⚠ WARNING!

CONTROL HAZARD!

A qualified operator *must* be in control of the yacht at *all* times. Do *NOT* operate your yacht while under the influence of alcohol or drugs.

If this is your first yacht or if you are changing to a type of yacht you are ***not*** familiar with, for your own comfort and safety, obtain handling and operating experience ***before*** assuming command of this yacht.

Take one of the boating safety classes offered by the U.S. Power Squadrons or the U.S. Coast Guard Auxiliary. For more course information, including dates and locations of upcoming classes, contact the organizations directly:

- U.S. Power Squadrons: 1-888-FOR-USPS (1-888-367-8777) or on the Internet at: http://www.usps.org
- In Canada, for the CPS courses call 1-888-CPS-BOAT.
- U.S. Coast Guard Auxiliary: 1-800-368-5647 or on the Internet at: http://www.cgaux.org

Outside the United States, your Meridian dealer, national sailing federation or local boat club can advise you of local sea schools or competent instructors.

Engines & Accessories Guidelines

NOTICE

When storing your yacht please refer to your engine's operation and maintenance manuals.

- Your yacht's engines and accessories were selected to provide optimum performance and service.
- Installing different engines or other accessories may cause unwanted handling characteristics.
- Should you choose to install different engines or to add accessories that will affect the yacht's running trim, have an experienced marine technician perform a safety inspection and handling test ***before*** operating your yacht again.

Certain modifications to your yacht will result in cancellation of your warranty protection.

- ***Always*** check with your dealer ***before*** making any modifications to your yacht.

Propellers

⚠ **CAUTION**

ENGINE DAMAGE HAZARD!

The factory standard propellers may not be the best for your particular yacht and load conditions. Refer to the engine manual for engine RPM ratings. The engines should reach, but *NOT* exceed the full rated RPM when full-throttle is applied.

Immediately contact your local Meridian dealer if:

- **The engines cannot reach the full rated RPM when full-throttle is applied, or;**
- **The engines exceed the full rated RPM when full-throttle is applied.**

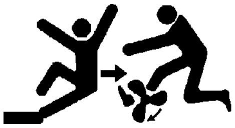
- Keep the propellers in good repair and at the correct pitch for your particular situation.
- A slightly bent or nicked propeller will adversely affect the performance of your yacht.

Engines & Accessories Literature

- The engines and accessories installed on your yacht come with their own operation and maintenance manuals.
- Read these manuals ***before*** using the engines and accessories.
- Unless noted otherwise, ***all*** engine and accessory literature referred to in this *Owner's Manual* is included in your owner's packet.

Safety Standards

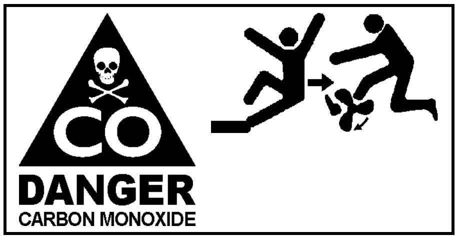
⚠ DANGER!



FALLING and ROTATING PROPELLER HAZARD!

- ***NEVER*** **allow anyone to ride on parts of the yacht *NOT* designed for such use.**
- **Sitting on seat backs, lounging on the forward deck, bow riding, gunwale riding or occupying the transom platform while underway is especially hazardous and will cause personal injury or death.**

⚠ DANGER!



ROTATING PROPELLER and CARBON MONOXIDE POISONING HAZARD!

- ***NEVER*** **allow anyone to occupy, or hang from, the back deck or swim platform while the engines are running.**
- **Teak surfing, dragging, or water skiing within 20 feet of a moving watercraft can be fatal.**

⚠ DANGER!

PERSONAL SAFETY HAZARD!

ALWAYS **secure the anchor and other loose objects *before* getting underway. The anchor and other items that are not properly secured can come loose when the yacht is moving and cause personal injury or death.**

- Your yacht's mechanical and electrical systems were designed to meet safety standards in effect at the time it was built.
- Some of these standards were mandated by law, all of them were designed to insure your safety, and the safety of other people, vessels and property.

In addition to this *Owner's Manual*, please read the *Cruiser & Yacht Owner's Manual Supplement* and ***all*** accessory instructions for important safety standards and hazard information.

Qualified Maintenance

⚠ WARNING!

To maintain the integrity and safety of your yacht, allow *only* qualified personnel to perform maintenance on, or in any way modify the:

- **Steering System**
- **Propulsion System**
- **Engine Control System**
- **Fuel System**
- **Environmental Control System**
- **Electrical System**
- **Navigational System.**

- Failure to maintain your yacht’s systems (listed in the warning above) as designed could violate the laws in your jurisdiction and could expose you and other people to the danger of bodily injury or accidental death.
- Follow the instructions provided in the *Cruiser & Yacht Owner’s Manual Supplement*, this *Owner’s Manual*, the engine owner’s manual and ***all*** accessory literature.

Special Care For Moored Yachts

NOTICE

- **To help seal the hull bottom and reduce the possibility of gelcoat blistering on moored boats, apply an epoxy barrier coating. The barrier coating should be covered with several coats of anti-fouling paint.**
- **Many states regulate the chemical content of bottom paints in order to meet environmental standards. Check with your local dealer about recommended bottom paints, and about the laws in effect in your area.**

- Whether moored in saltwater or freshwater, your yacht will collect marine growth on its hull bottom.
- This will detract from the yacht’s beauty, greatly affect its performance and may damage the gelcoat.
- There are two methods of slowing marine growth:

1. Periodically haul the yacht out of the water and scrub the hull bottom with a bristle brush and a solution of soap and water.
2. Occasionally re-paint the hull below the waterline with a good grade of anti-fouling paint.

Sacrificial Anodes (Zincs)

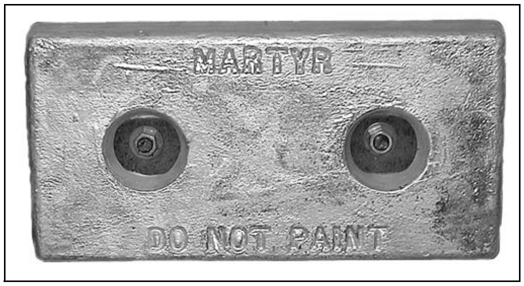
NOTICE

- **Do *NOT* paint between the zinc and the metal surface it contacts and do *NOT* paint over the zincs.**
- **If the zincs are not bonded correctly, they will *NOT* provide protection.**

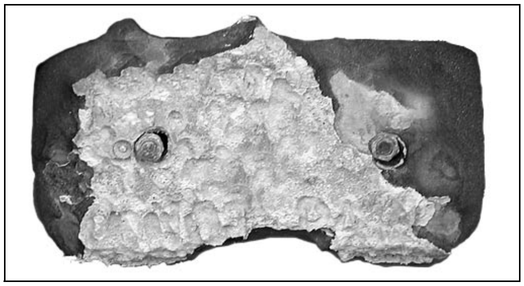
Your yacht features sacrificial anodes (zincs) to protect underwater metal parts from excessive deterioration. Check the zincs regularly and replace them if they have deteriorated more than 70%.

There are many factors that affect the rate at which the zincs deteriorate, including:

- Water temperature
- Salinity
- Water pollution
- Stray electrical current from the yacht or dock may cause complete deterioration in just a few weeks. If there is rapid zinc deterioration, measure the electrolytic corrosion around your yacht with a corrosion test meter.



NEW SACRIFICIAL ANODE



DETERIORATED SACRIFICIAL ANODE

Yacht Lifting

⚠ WARNING!

PERSONAL INJURY and /or PRODUCT OR PROPERTY DAMAGE HAZARD!

- **Lifting slings may slip on the hull.**
- **Avoid serious injury or death by securing the lifting slings together *before* lifting.**

⚠ WARNING!

PERSONAL INJURY and /or PRODUCT OR PROPERTY DAMAGE HAZARD!

- ***NEVER* lift the yacht using the cleats, or the bow and stern eyes.**

⚠ WARNING!

PERSONAL INJURY and /or PRODUCT OR PROPERTY DAMAGE HAZARD!

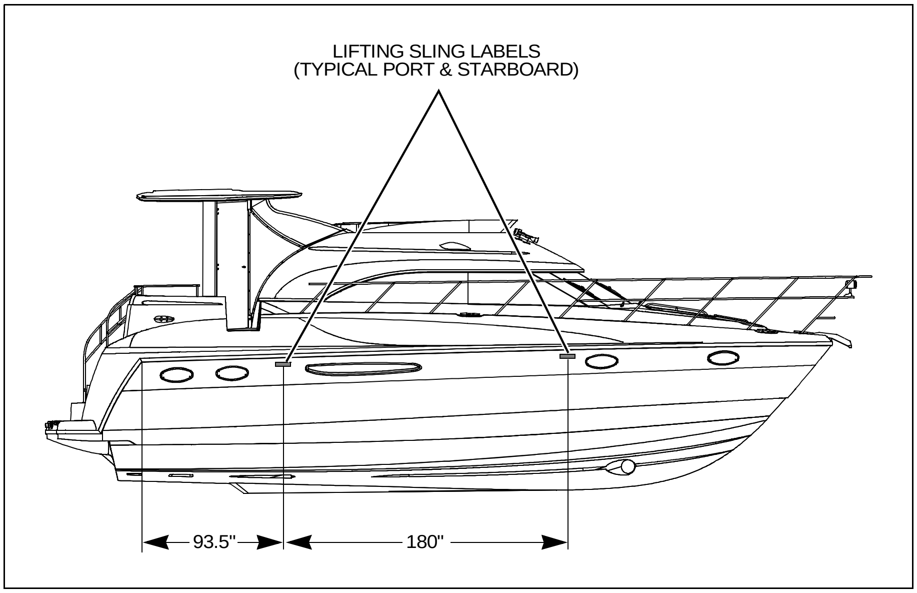
- **Water in the bilge can shift and change the balance of the load.**
- **If water is present in the bilge, pump or drain the water out of the bilge areas *before* lifting your yacht.**

⚠ CAUTION

PRODUCT or PROPERTY DAMAGE HAZARD!

- **When lifting any boat, *always* use a spreader bar. The spreader bar *must* be equal to the width of the boat at each lifting point.**

- ***Always*** follow the lift equipment's instructions and requirements.
- When lifting your yacht, ***always*** position the lifting slings at the port and starboard lifting sling label positions, as shown in the illustration.



Carbon Monoxide (CO)

⚠ DANGER!

CO
DANGER
CARBON MONOXIDE

- **Carbon monoxide gas (CO) is colorless, odorless, tasteless, and extremely dangerous.**
- ***All* engines, generators, and fuel burning appliances produce CO as exhaust.**
- **Prolonged exposure to low concentrations or very quick exposure to high concentrations will cause *BRAIN DAMAGE* or *DEATH*.**
- **Teak surfing, dragging, or water skiing within 20 feet of a moving watercraft can be fatal.**

Facts about CO

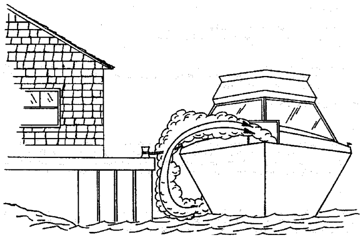
- CO poisoning causes a significant number of boating deaths each year.
- Called the "silent killer", CO is an extremely toxic, colorless, odorless and tasteless gas.
- CO can harm or even kill you inside or outside your yacht.
- CO can affect you whether you're underway, moored, or anchored.
- CO symptoms are similar to seasickness or alcohol intoxication.
- CO can make you sick in seconds. In high enough concentrations, even a few breaths can be fatal.
- Breathing CO blocks the ability of your blood to carry oxygen.
- The effects are cumulative, even low levels of exposure can result in injury or death.

Factors That Increase the Effects of CO Poisoning

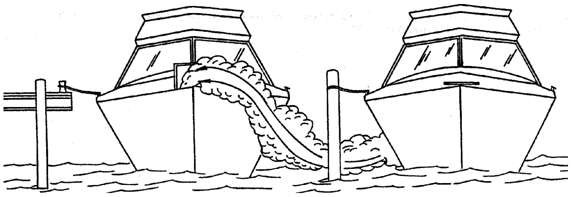
- Age
- Smokers or people exposed to high concentrations of cigarette smoke
- Consumption of alcohol
- Lung disorders
- Heart problems
- Pregnancy

Where and How CO Can Accumulate

Stationary Conditions That Increase CO Accumulations Include:



a. Using engine, generator, or other fuel burning device when yacht is moored in a confined space.

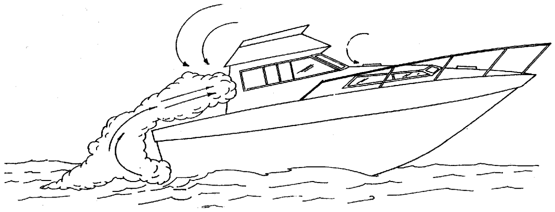


b. Mooring too close to another boat that is using its engine, generator, or other fuel burning device.

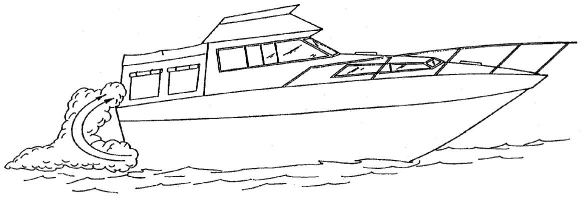
To correct stationary situations A and/or B:

- ***Close all*** windows, portlights and hatches.
- If possible, move your yacht away from source of CO.

Running Conditions That Increase CO Accumulations Include:



c. Running yacht with trim angle of bow too high.



d. Running yacht without through ventilation (station wagon effect).

To correct running situations C and/or D:

- Trim bow down.
- ***Open*** windows and canvas.
- When possible, run yacht so that prevailing winds help dissipate exhaust.

How to Protect Yourself and Others From CO

- Know where and how CO may accumulate in and around your yacht (see above).
- Maintain fresh air circulation throughout the yacht at ***all*** times.
- Know where your engine and generator exhaust outlets are located and keep everyone away from these areas.
- ***Never*** sit on, or hang onto, the back deck or swim platform while the engines are running.
- ***Never*** enter the areas under swim platforms where exhaust outlets are located.
- Although CO can be present without the smell of exhaust fumes, if exhaust fumes are detected on the yacht, take ***immediate*** action to dissipate these fumes.
- Treat symptoms of seasickness as possible CO poisoning. Get the person into fresh air ***immediately***. Seek medical attention—unless you're sure it's not CO.
- Install and maintain CO alarms inside your yacht. Do ***NOT*** ignore any alarm. Replace alarms as recommended by the alarm manufacturer.
- Follow the checklists provided on the next page.
- Get a Vessel Safety Check.

For information on how to get a free VESSEL SAFETY CHECK, visit www.vesselsafetycheck.org or contact your local U.S. Coast Guard Auxiliary or United States Power Squadrons®.

- U.S. Coast Guard Auxiliary: 1-800-368-5647 or on the Internet at: http://www.cgaux.org
- U.S. Power Squadrons: 1-888-FOR-USPS (1-888-367-8777) or on the Internet at: http://www.usps.org

Trip Checklist

☐ Educate ***all*** passengers about the symptoms of CO poisoning and where CO may accumulate.
☐ When docked, or rafted with another boat, be aware of exhaust emissions from the other boats.
☐ Make sure you know where the exhaust outlets are located on your yacht.
☐ Confirm that water flows from the exhaust outlets when the engines and generator are started.
☐ Listen for any change in exhaust sound, which could indicate an exhaust component failure.
☐ Test the operation of each CO alarm by pressing the test button.

Monthly Checklist

☐ Make sure ***all*** exhaust clamps are in place and secure.
☐ Look for exhaust leaking from exhaust system components. Signs include rust and/or black streaking, water leaks, or corroded or cracked fittings.
☐ Inspect rubber exhaust hoses for burned, cracked, or deteriorated sections. ***All*** rubber hoses should be pliable and free of kinks.

Annual Checklist

Have a Qualified Marine Technician:

☐ Replace exhaust hoses if cracking, charring, or deterioration is found.
☐ Ensure that your engines and generators are properly tuned, and well maintained.
☐ Inspect each water pump impeller and the water pump housing. Replace if worn. Make sure cooling systems are in working condition.
☐ Inspect ***all*** metallic exhaust components for cracking, rusting, leaking, or loosening. Make sure they check the cylinder head gasket, exhaust manifold, water injection elbow, and the threaded adapter nipple between the manifold and the elbow.
☐ Clean, inspect, and confirm proper operation of the generator cooling water anti-siphon valve (if equipped).

Carbon Monoxide Alarm System

⚠ DANGER!

CO
DANGER
CARBON MONOXIDE

CARBON MONOXIDE POISONING HAZARD!

- **The house battery switch must be in the *On* position for the CO Monitors to work.**
- **If your yacht will be unattended for an extended period of time, turn *Off* the house battery switch or the CO Monitors will drain the house battery.**
- ***Immediately* turn the house battery switch back *On* when you reboard your yacht.**

- ***NEVER*** disconnect the alarm system.
- Read and understand the manufacturer's instructions for your CO alarm system. If you did not receive an instruction manual, call (800) 383-0269 and one will be mailed to you.

More Information

For more information about how you can prevent carbon monoxide poisoning on recreational boats and other ways to boat more safely, contact:

United States Coast Guard
Office of Boating Safety (G-OPB-3)
2100 Second Street SW
Washington, DC 20593
www.uscgboating.org
1-800-368-5647

National Marine Manufacturers Association (NMMA)
200 East Randolph Drive
Suite 5100
Chicago, IL 60601-9301
www.nmma.org
312-946-6200

American Boat & Yacht Council, Inc. (ABYC)
3069 Solomon's Island Road
Edgewater, MD 21037-1416
www.abycinc.org
410-956-1050

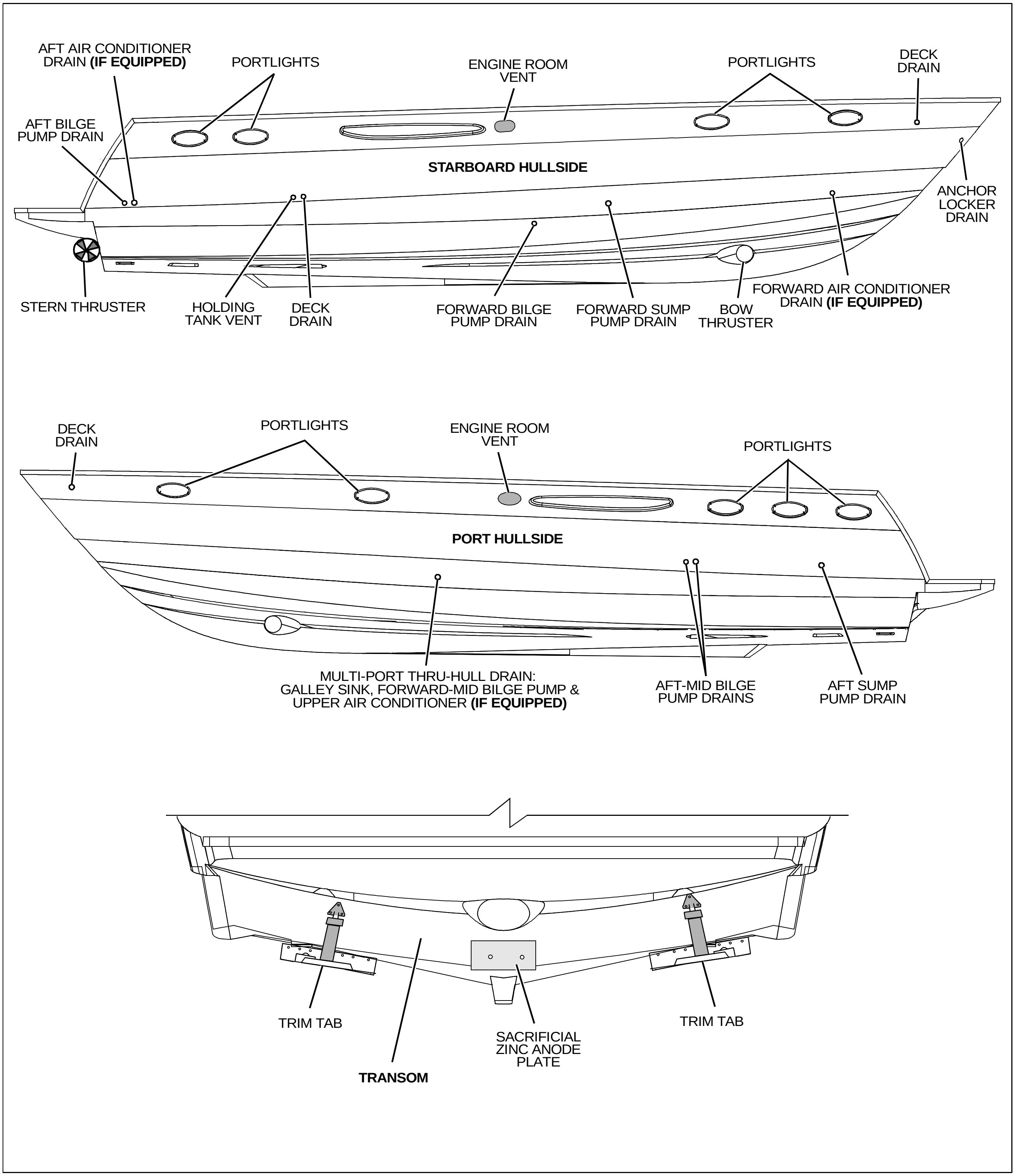
For information on how to get a free VESSEL SAFETY CHECK, visit www.vesselsafetycheck.org or contact your local U.S. Coast Guard Auxiliary or United States Power Squadrons®.

- U.S. Coast Guard Auxiliary: 1-800-368-5647 or on the Internet at: http://www.cgaux.org
- U.S. Power Squadrons: 1-888-FOR-USPS (1-888-367-8777) or on the Internet at: http://www.usps.org

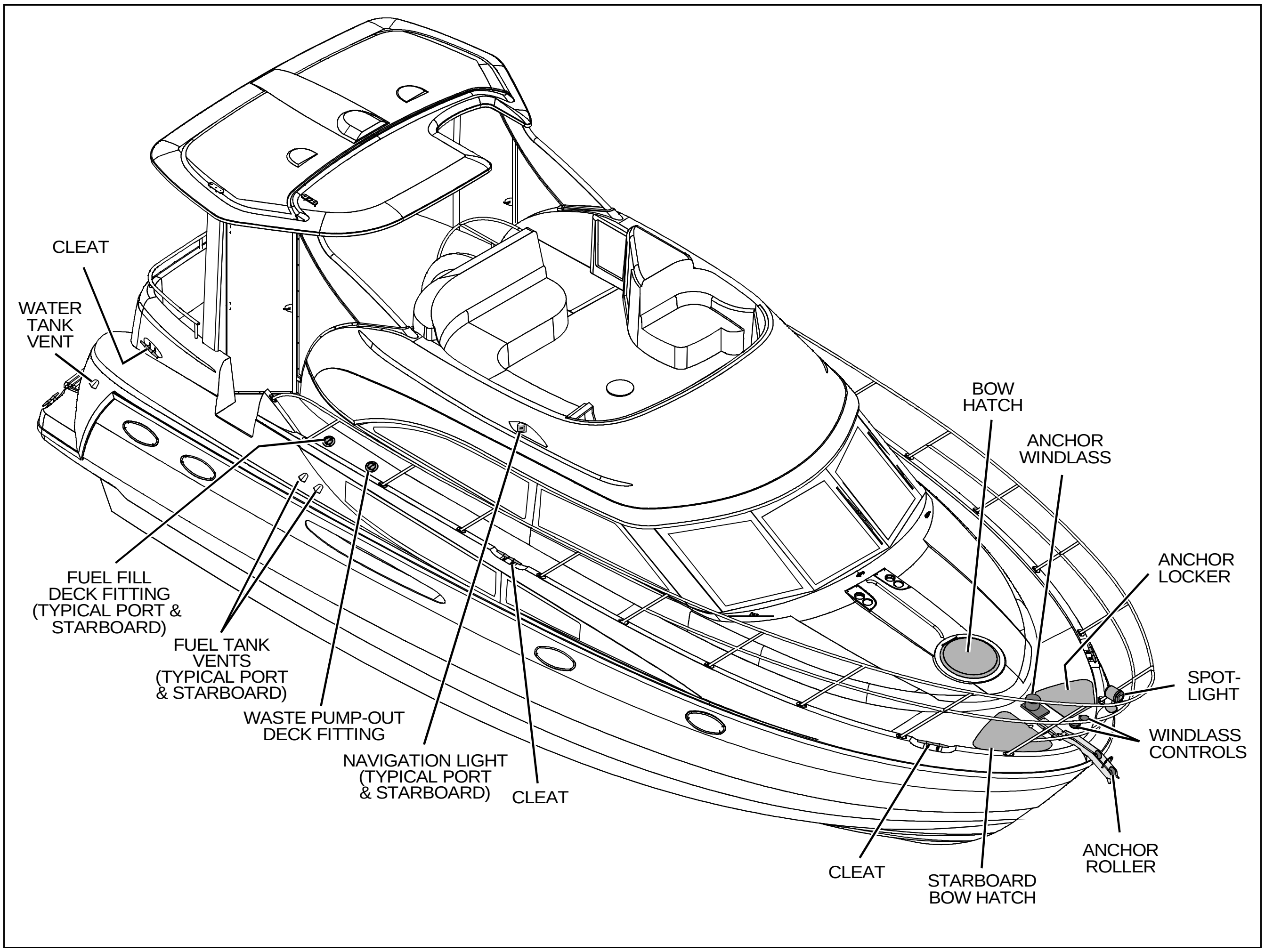
Chapter 2: Locations

Exterior Views

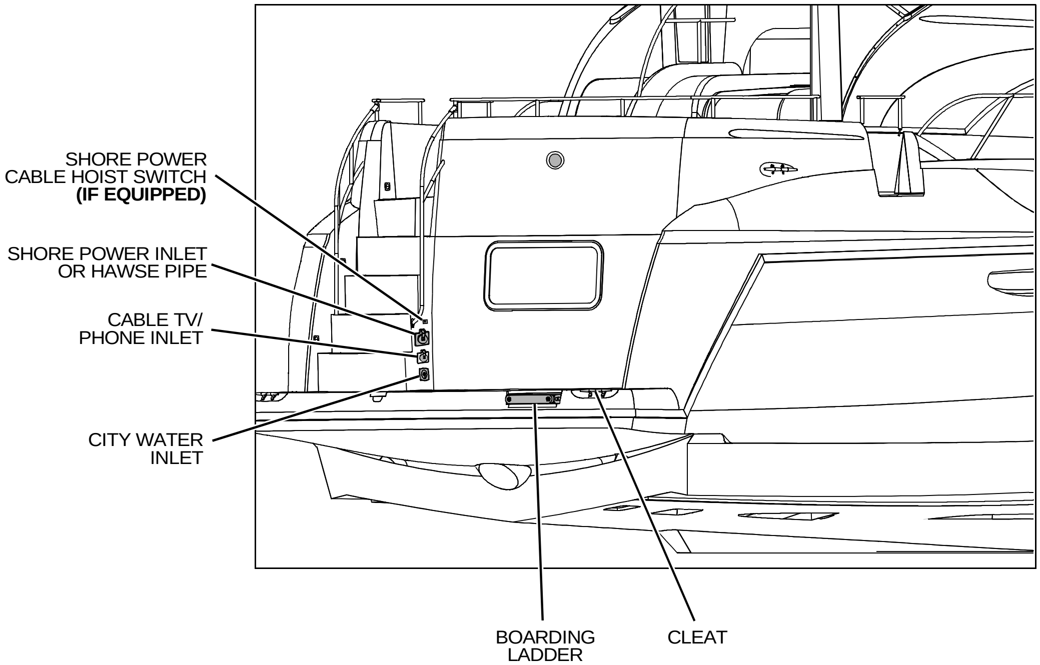
Hull Views

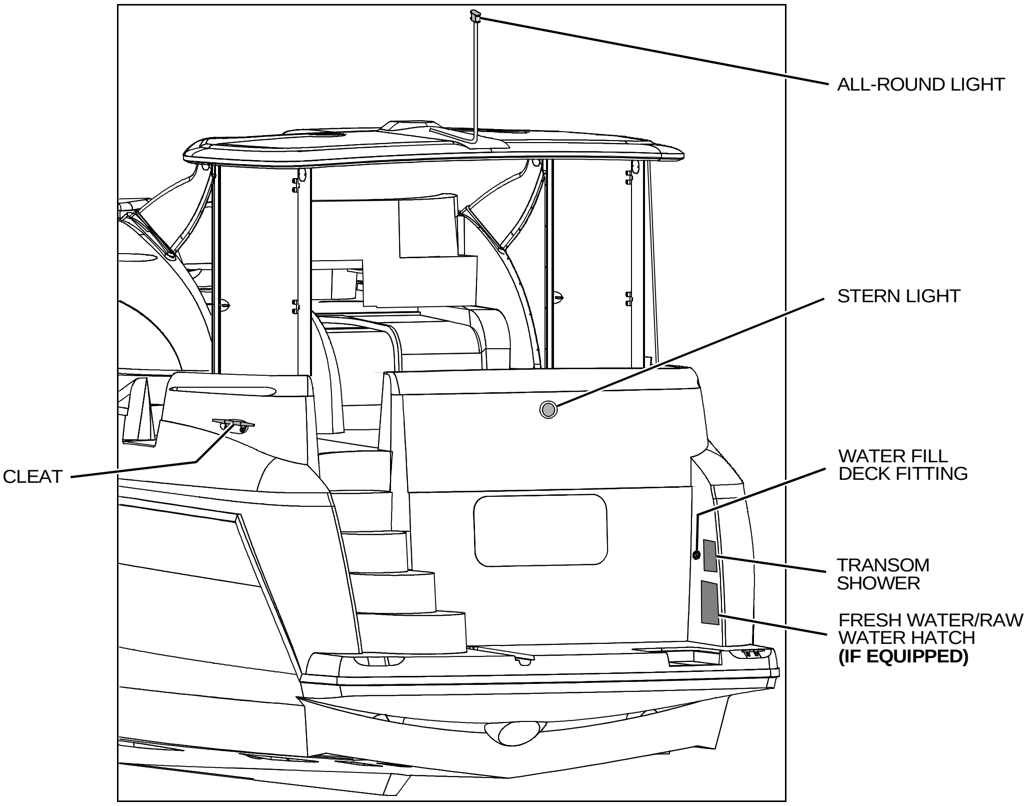

AFT AIR CONDITIONER DRAIN **(IF EQUIPPED)**
PORTLIGHTS
ENGINE ROOM VENT
PORTLIGHTS
DECK DRAIN
AFT BILGE PUMP DRAIN
STARBOARD HULLSIDE
ANCHOR LOCKER DRAIN
STERN THRUSTER
HOLDING TANK VENT
DECK DRAIN
FORWARD BILGE PUMP DRAIN
FORWARD SUMP PUMP DRAIN
BOW THRUSTER
FORWARD AIR CONDITIONER DRAIN **(IF EQUIPPED)**
DECK DRAIN
PORTLIGHTS
ENGINE ROOM VENT
PORTLIGHTS
PORT HULLSIDE
MULTI-PORT THRU-HULL DRAIN: GALLEY SINK, FORWARD-MID BILGE PUMP & UPPER AIR CONDITIONER **(IF EQUIPPED)**
AFT-MID BILGE PUMP DRAINS
AFT SUMP PUMP DRAIN
TRIM TAB
TRIM TAB
SACRIFICIAL ZINC ANODE PLATE
TRANSOM

Deck View


CLEAT
WATER TANK VENT
BOW HATCH
ANCHOR WINDLASS
ANCHOR LOCKER
FUEL FILL DECK FITTING (TYPICAL PORT & STARBOARD)
FUEL TANK VENTS (TYPICAL PORT & STARBOARD)
SPOT-LIGHT
WASTE PUMP-OUT DECK FITTING
WINDLASS CONTROLS
NAVIGATION LIGHT (TYPICAL PORT & STARBOARD)
CLEAT
ANCHOR ROLLER
CLEAT
STARBOARD BOW HATCH

Aft Deck Views

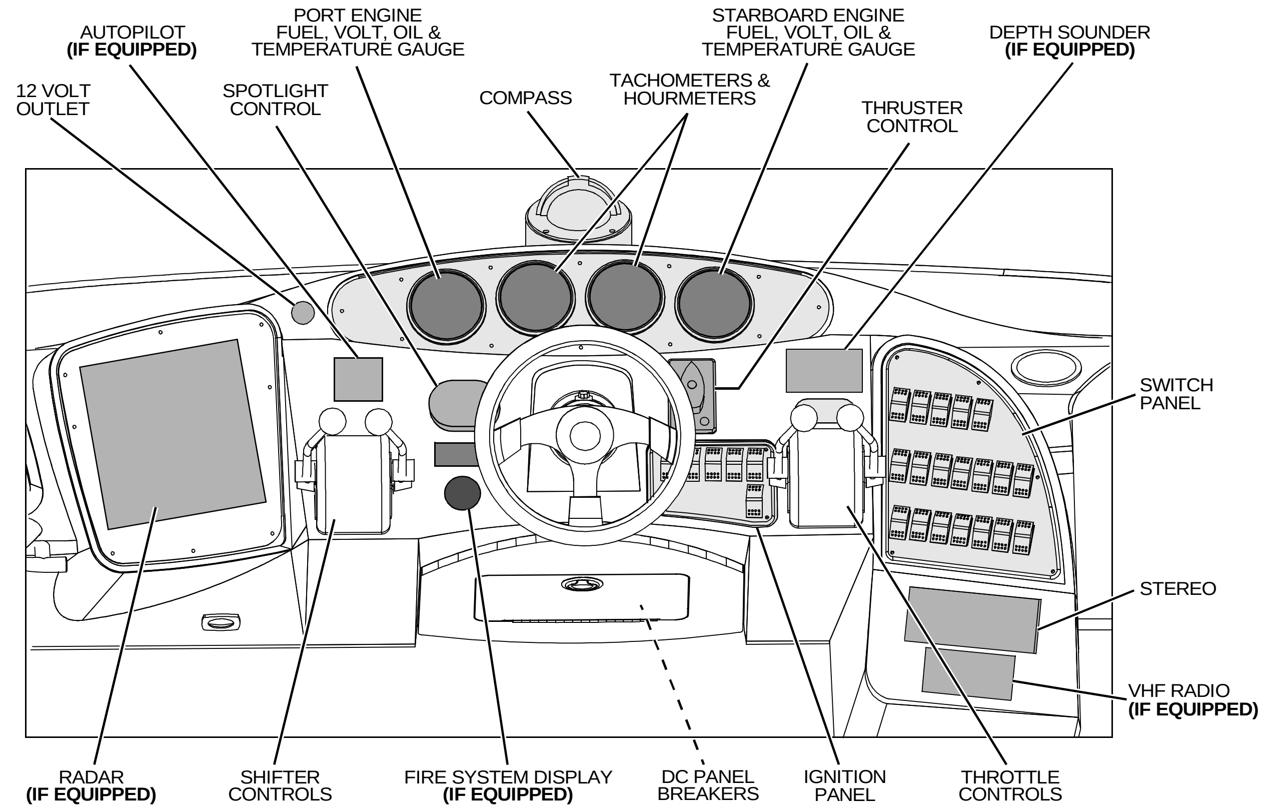

SHORE POWER
CABLE HOIST SWITCH
(IF EQUIPPED)
SHORE POWER INLET
OR HAWSE PIPE
CABLE TV/
PHONE INLET
CITY WATER
INLET
BOARDING
LADDER
CLEAT


ALL-ROUND LIGHT
STERN LIGHT
CLEAT
WATER FILL
DECK FITTING
TRANSOM
SHOWER
FRESH WATER/RAW
WATER HATCH
(IF EQUIPPED)

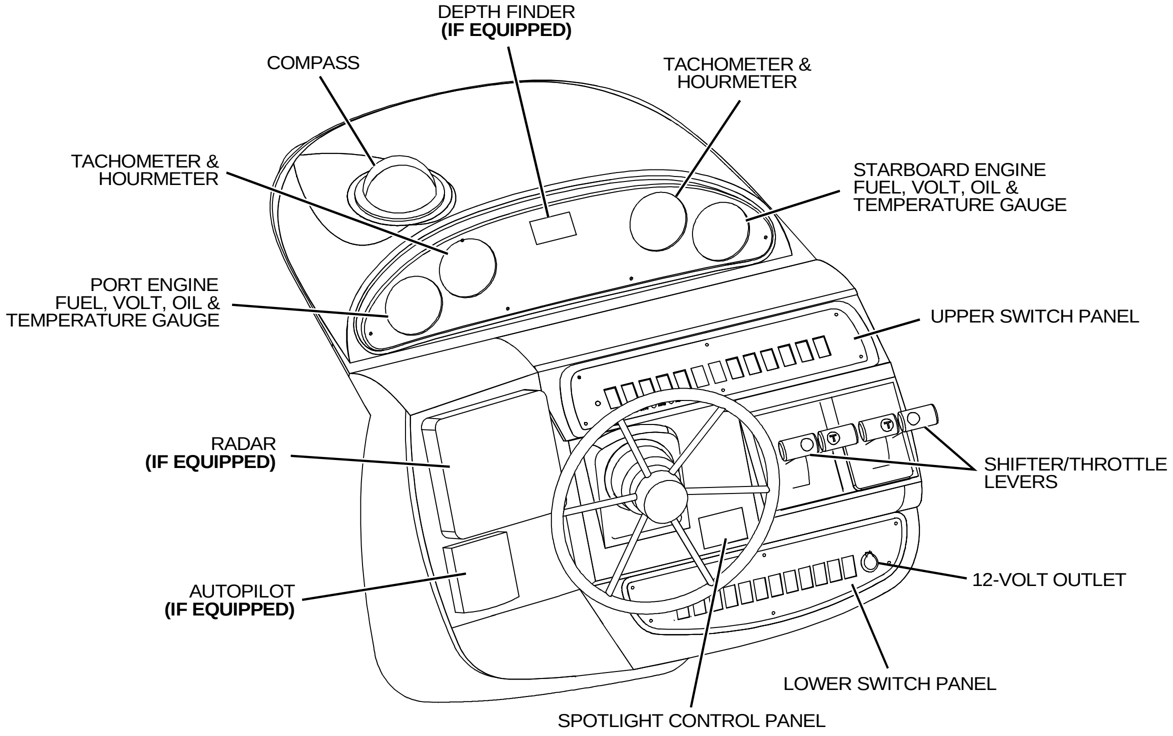
Helm Station(s)

NOTE: TYPICAL HELM LAYOUTS SHOWN. ACTUAL LAYOUTS MAY VARY DEPENDING ON ENGINE & ACCESSORY OPTIONS

UPPER HELM


AUTOPILOT
(IF EQUIPPED)
PORT ENGINE FUEL, VOLT, OIL & TEMPERATURE GAUGE
STARBOARD ENGINE FUEL, VOLT, OIL & TEMPERATURE GAUGE
DEPTH SOUNDER
(IF EQUIPPED)
12 VOLT OUTLET
SPOTLIGHT CONTROL
COMPASS
TACHOMETERS & HOURMETERS
THRUSTER CONTROL
SWITCH PANEL
STEREO
VHF RADIO
(IF EQUIPPED)
RADAR
(IF EQUIPPED)
SHIFTER CONTROLS
FIRE SYSTEM DISPLAY
(IF EQUIPPED)
DC PANEL BREAKERS
IGNITION PANEL
THROTTLE CONTROLS

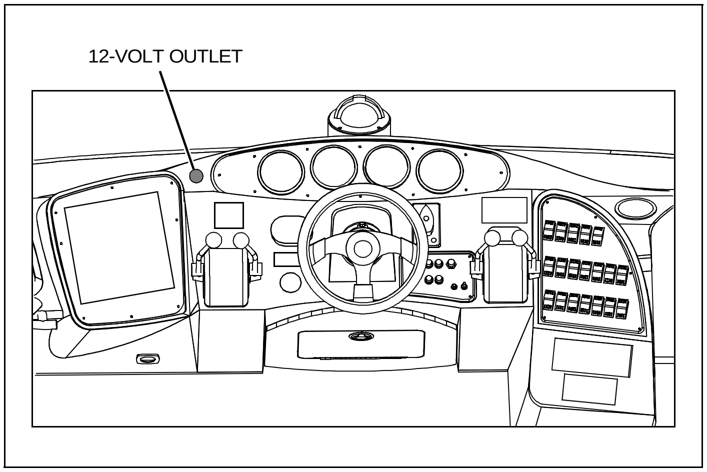
LOWER HELM (IF EQUIPPED)


DEPTH FINDER
(IF EQUIPPED)
COMPASS
TACHOMETER & HOURMETER
TACHOMETER & HOURMETER
STARBOARD ENGINE FUEL, VOLT, OIL & TEMPERATURE GAUGE
PORT ENGINE FUEL, VOLT, OIL & TEMPERATURE GAUGE
UPPER SWITCH PANEL
RADAR
(IF EQUIPPED)
SHIFTER/THROTTLE LEVERS
AUTOPILOT
(IF EQUIPPED)
12-VOLT OUTLET
LOWER SWITCH PANEL
SPOTLIGHT CONTROL PANEL

Component Locations

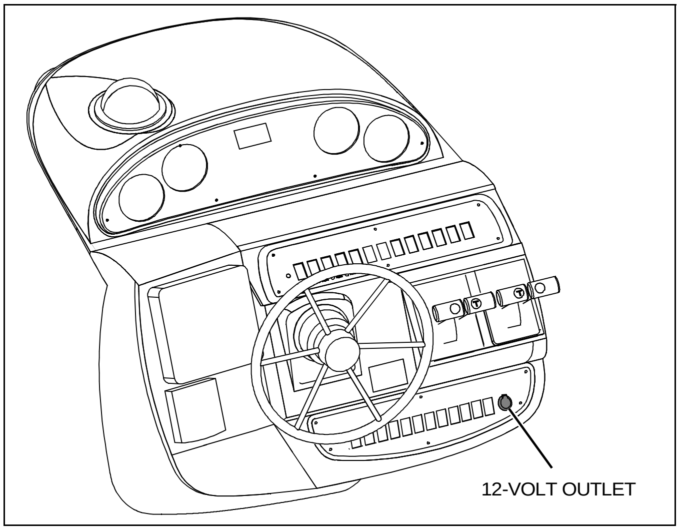
12-Volt Accessory Outlet - Upper Helm:

- Located on the dash.


12-VOLT OUTLET

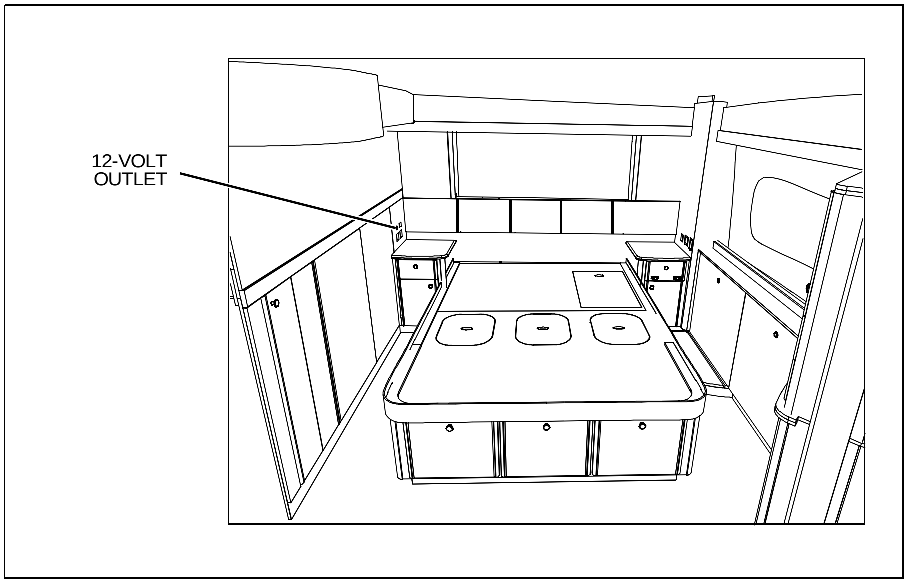
12-Volt Accessory Outlet - Lower Helm (If Equipped):

- Located on the lower switch panel.


12-VOLT OUTLET

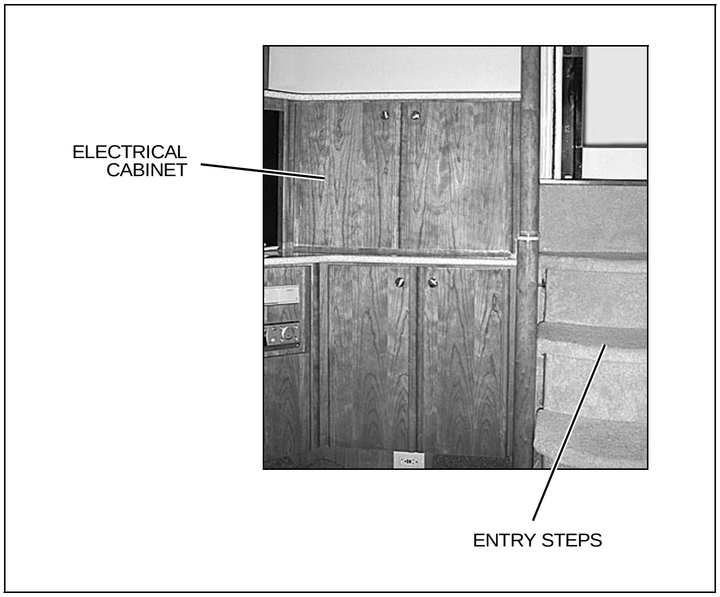
12-Volt Accessory Outlet - Aft Cabin:

- Located on the forward wall.


12-VOLT
OUTLET

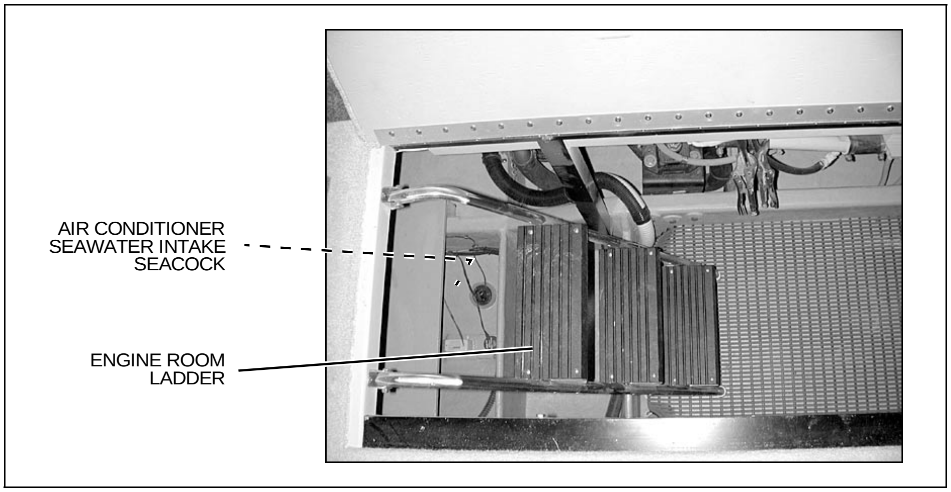
AC & DC Main Distribution Panels

- Located inside the upper electrical cabinet on the starboard side of the salon.


ELECTRICAL CABINET
ENTRY STEPS

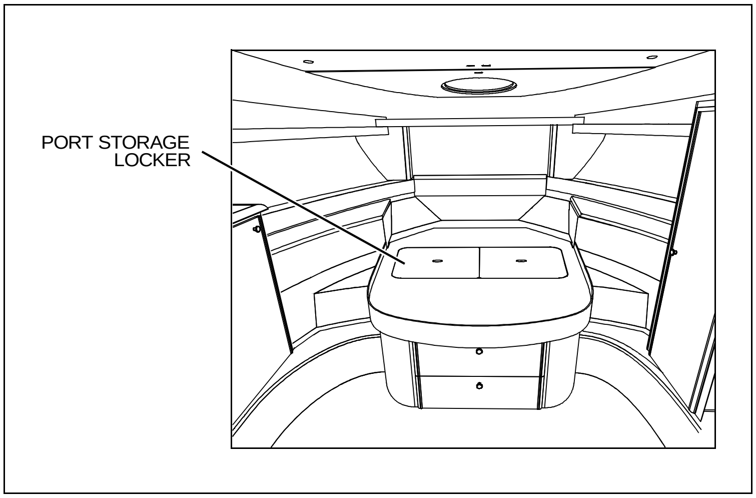
Air Conditioner Seawater Intake Seacock (If Equipped):

- Located in the engine room, forward of the ladder.


AIR CONDITIONER SEAWATER INTAKE SEACOCK
ENGINE ROOM LADDER

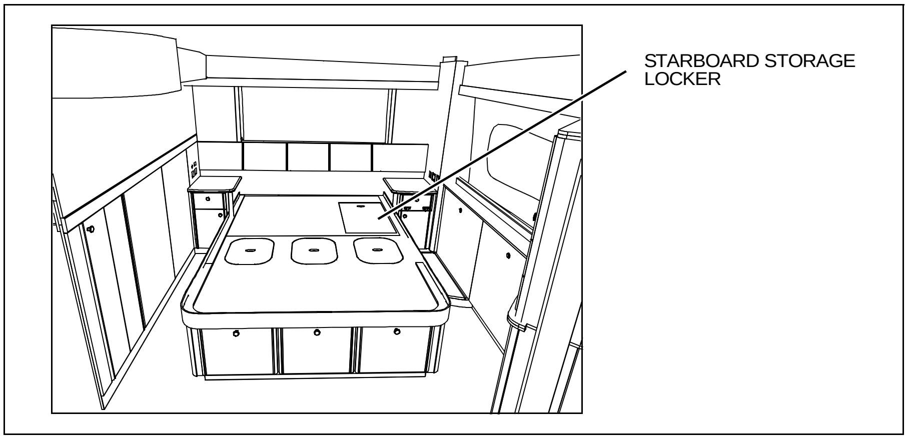
Air Conditioner Unit - V-berth (If Equipped):

- Located in the port storage locker under the V-berth mattress.


PORT STORAGE LOCKER

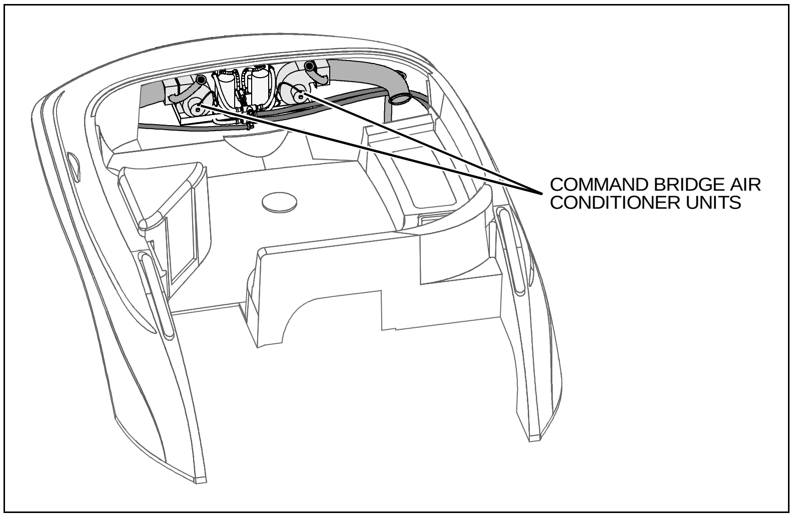
Air Conditioner Unit - Aft Cabin (If Equipped):

- Located in the starboard storage locker under the aft berth mattress.


STARBOARD STORAGE LOCKER

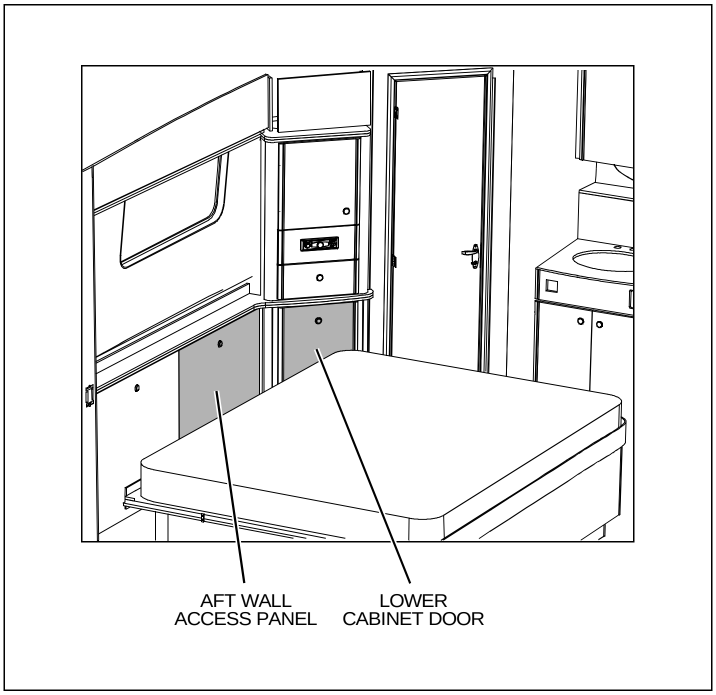
Air Conditioner Units (2) - Command Bridge (If Equipped):

- Located under the command bridge dash.


COMMAND BRIDGE AIR CONDITIONER UNITS

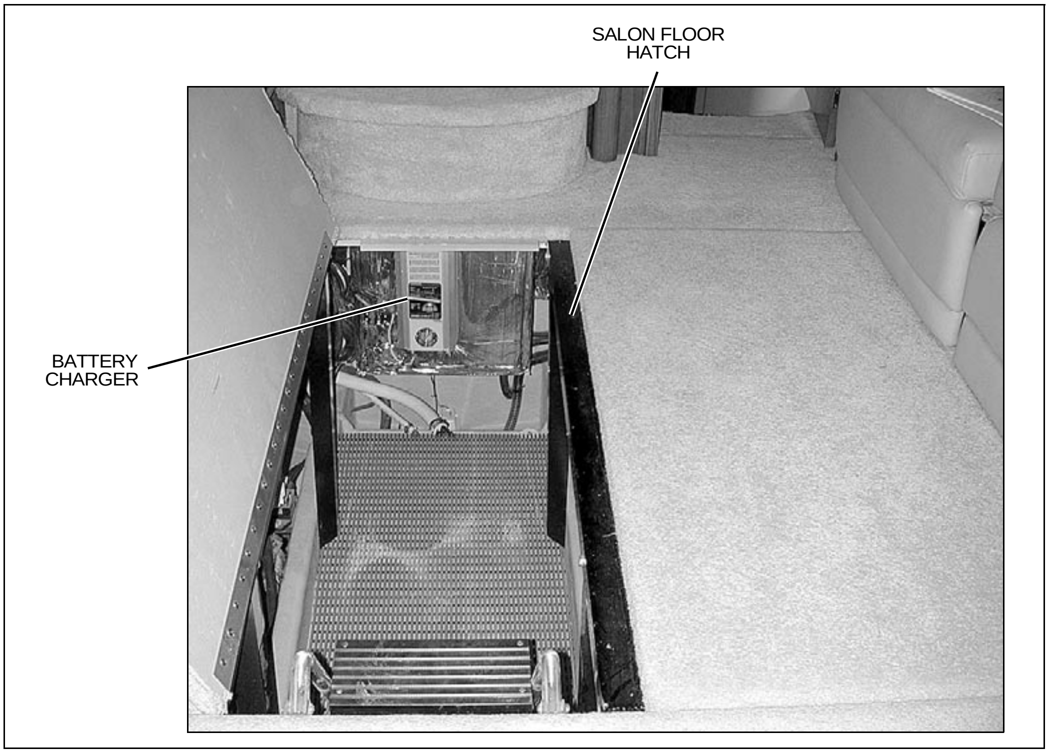
Batteries:

- Located in the aft cabin.
- Access the batteries through the lower cabinet door beneath the TV or through the aft wall access panel.


AFT WALL ACCESS PANEL
LOWER CABINET DOOR

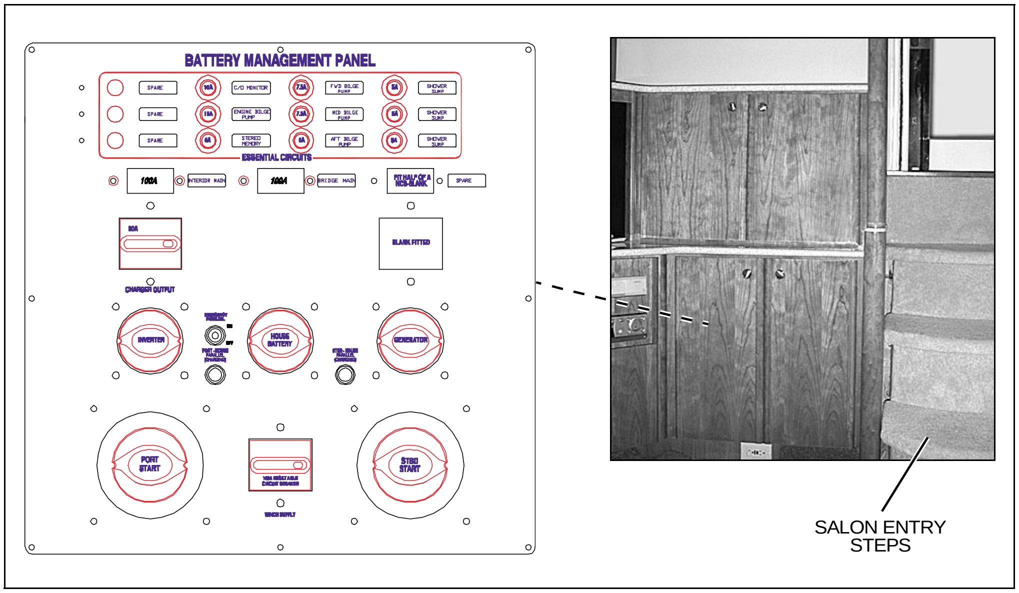
Battery Charger:

- Located on the aft wall of the engine room.


SALON FLOOR HATCH
BATTERY CHARGER

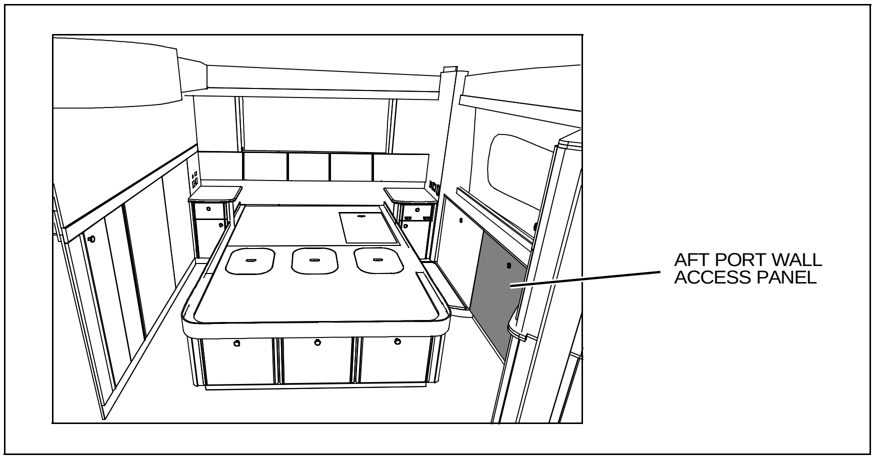
Battery Management Panel (Battery Switches):

- Located inside the lower electrical cabinet on the starboard side of the salon.


BATTERY MANAGEMENT PANEL
SPARE
10A
C/O MONITOR
7.5A
FWD BILGE PUMP
5A
SHOWER SUMP
SPARE
15A
ENGINE BILGE PUMP
7.5A
MID BILGE PUMP
5A
SHOWER SUMP
SPARE
6A
STEREO MEMORY
5A
AFT BILGE PUMP
5A
SHOWER SUMP
ESSENTIAL CIRCUITS
100A
INTERIOR MAIN
100A
BRIDGE MAIN
FIT HALF OF A NCB-BLANK
SPARE
80A
BLANK FITTED
CHARGER OUTPUT
INVERTER
PORT - HOUSE PARALLEL (CHARGING)
HOUSE BATTERY
STBD - HOUSE PARALLEL (CHARGING)
GENERATOR
PORT START
STBD START
WINCH SUPPLY
SALON ENTRY STEPS

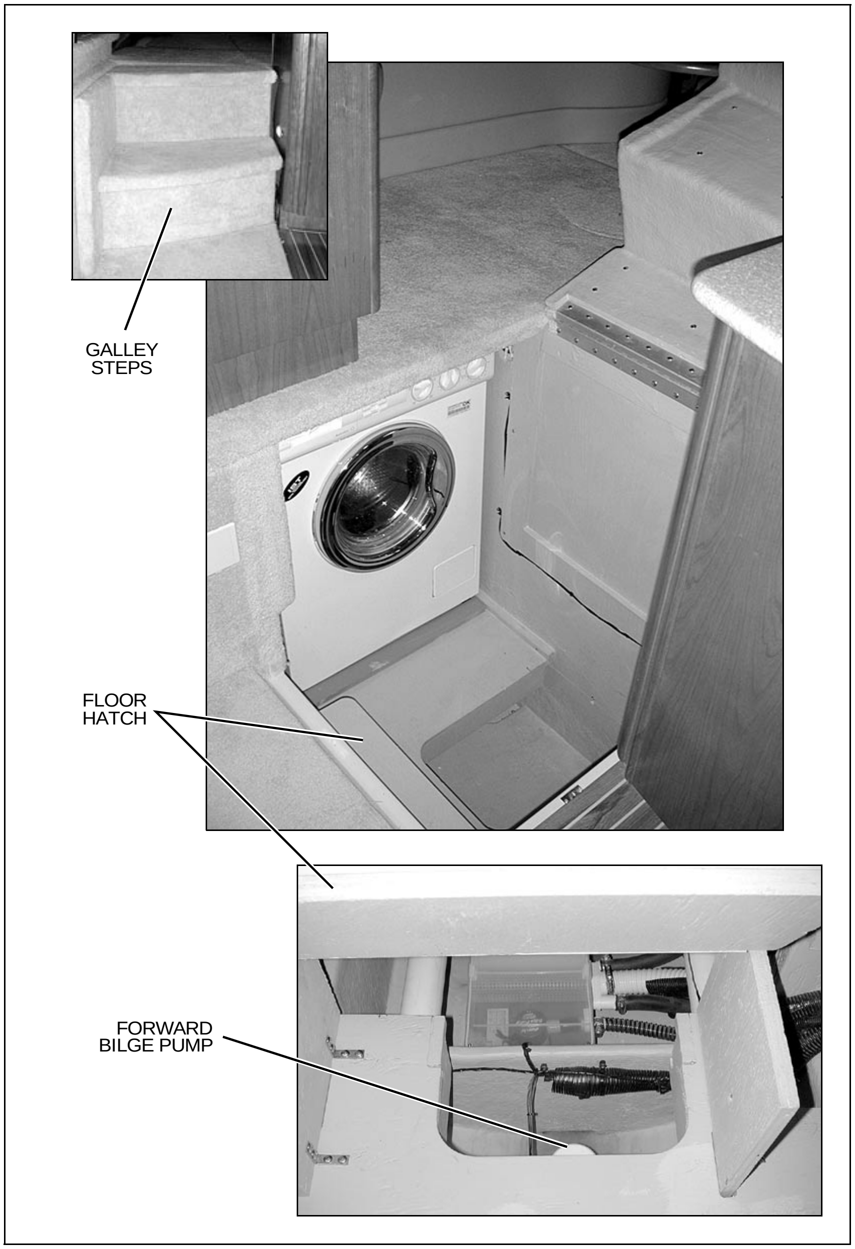
Bilge Pump & Float Switch - Aft:

- Located in the aft cabin.
- Access is through the aft port wall access panel.


AFT PORT WALL
ACCESS PANEL

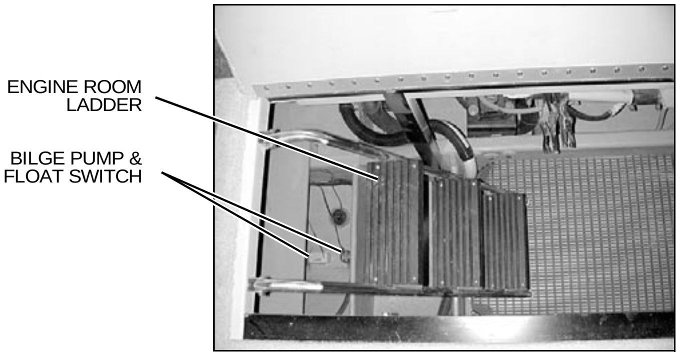
Bilge Pump & Float Switch - Forward:

- Located inside the floor hatch in the utility room.
- Access the utility room by lifting up the galley steps.


GALLEY
STEPS
FLOOR
HATCH
FORWARD
BILGE PUMP

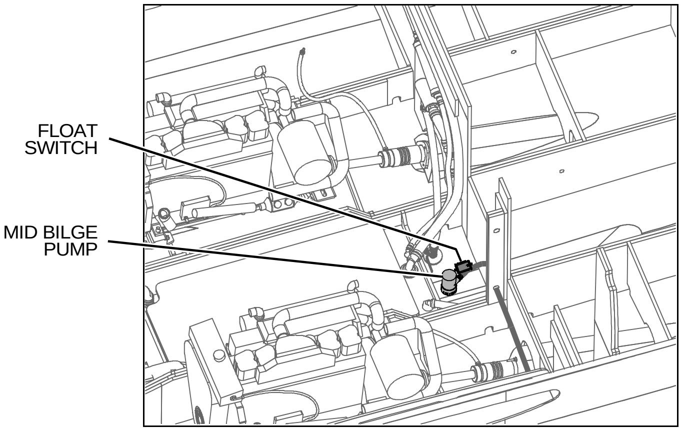
Bilge Pump & Float Switch - Forward-Aft:

- Located in the engine room, forward of the ladder.


ENGINE ROOM LADDER
BILGE PUMP & FLOAT SWITCH

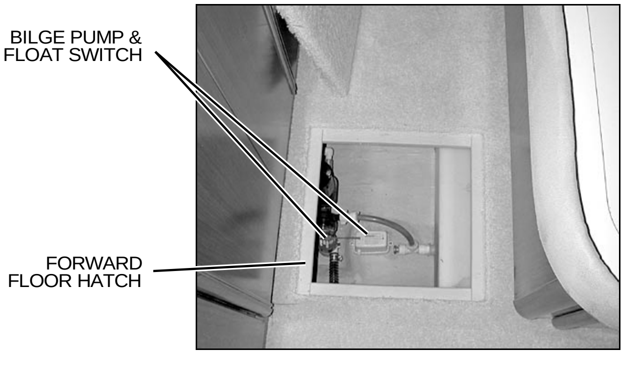
Bilge Pump & Float Switch - Mid-Forward:

- Located in the engine room, aft of the holding tank.


FLOAT SWITCH
MID BILGE PUMP

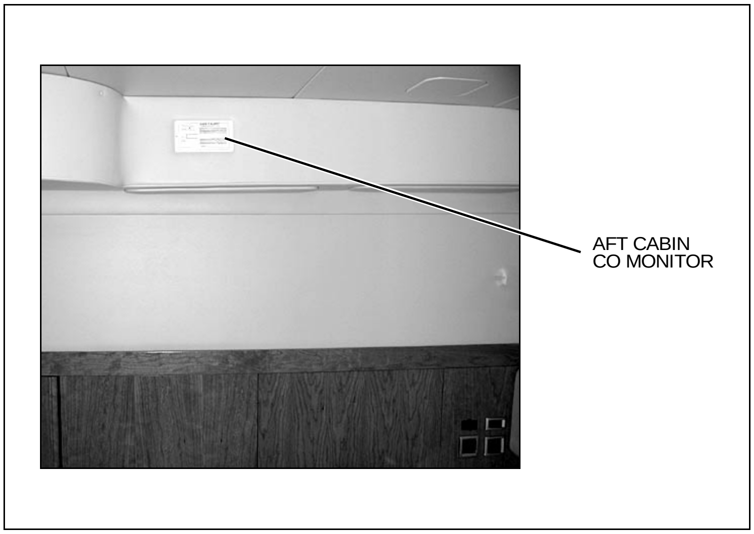
Bilge Pump & Float Switch - Mid-Aft:

- Located in the forward floor hatch in the aft cabin.


BILGE PUMP & FLOAT SWITCH
FORWARD FLOOR HATCH

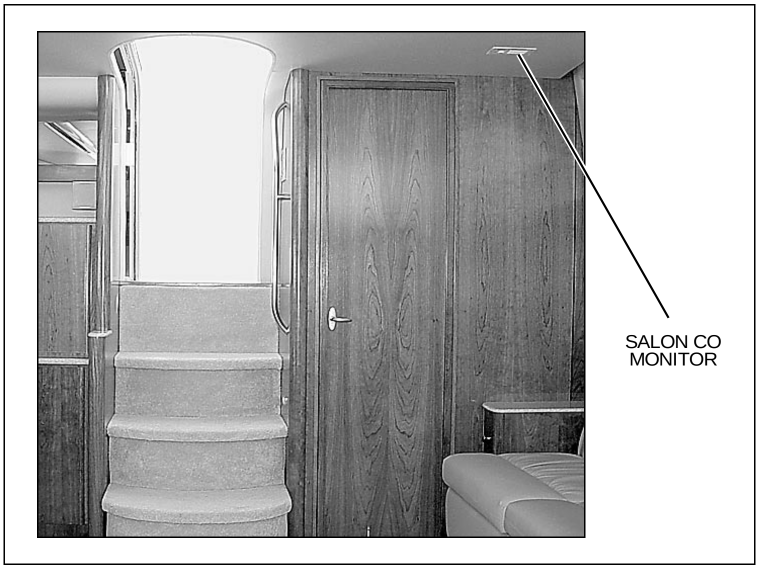
Carbon Monoxide Monitor - Aft Cabin:

- Located on the forward wall of the aft cabin.


AFT CABIN
CO MONITOR

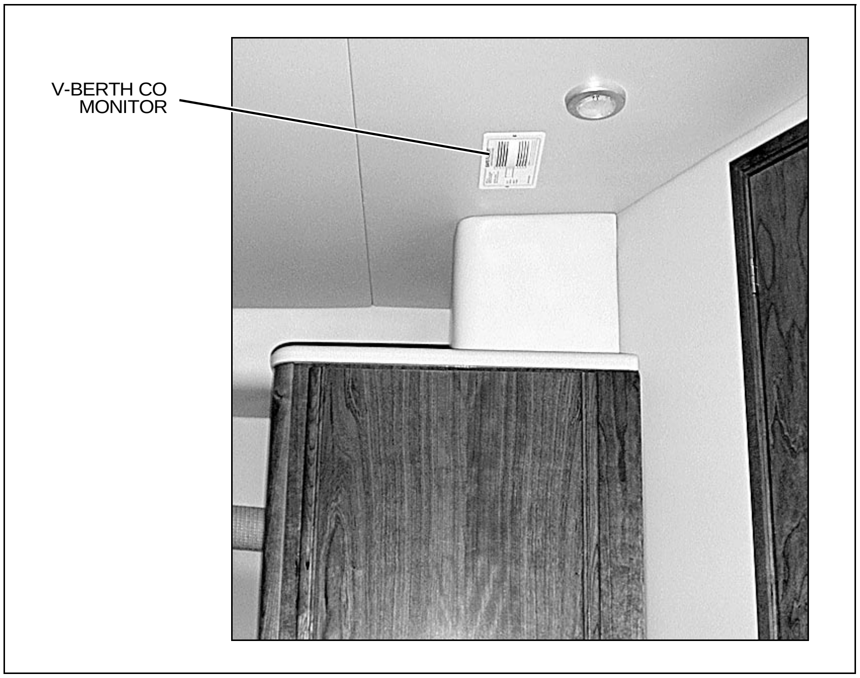
Carbon Monoxide Monitor - Salon:

- Located on the aft ceiling of the salon.


SALON CO
MONITOR

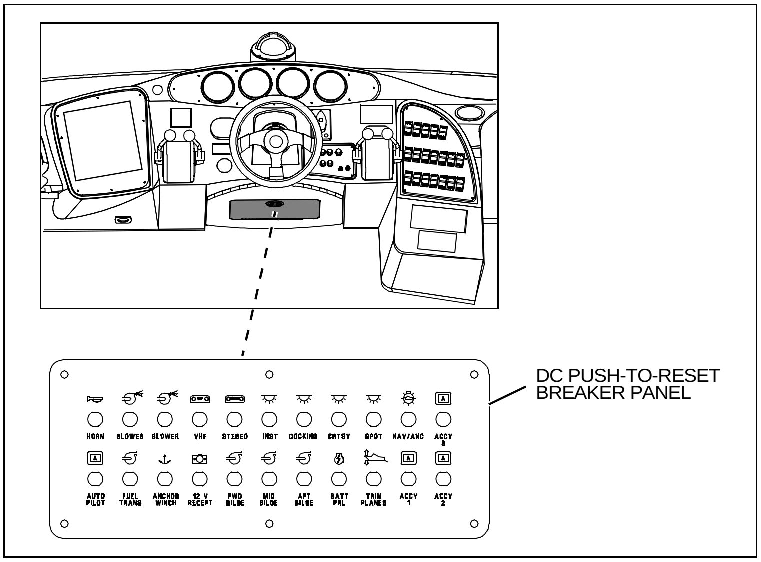
Carbon Monoxide Monitor - V-berth

- Located on the ceiling of the V-berth.


V-BERTH CO MONITOR

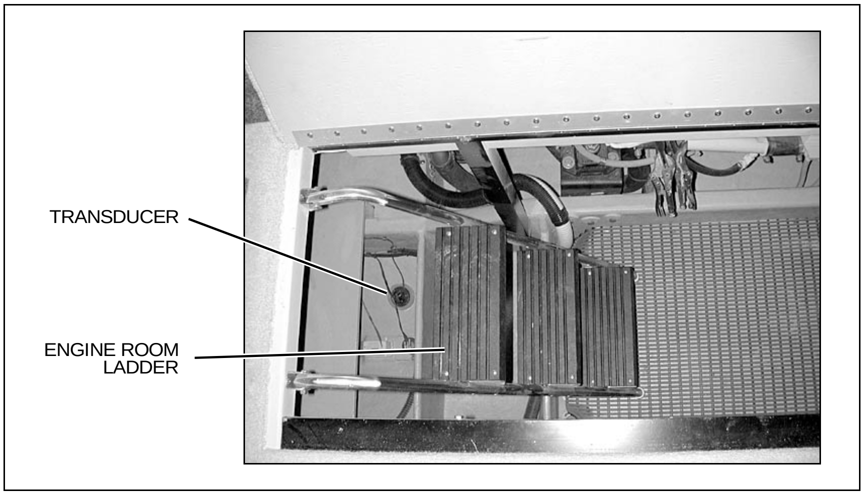
DC Push-To-Reset Breaker Panel:

- Located under the upper helm.


DC PUSH-TO-RESET BREAKER PANEL
HORN
BLOWER
BLOWER
VHF
STEREO
INST
DOCKING
CRTSY
SPOT
NAV/ANC
ACCY 3
AUTO PILOT
FUEL TRANS
ANCHOR WINCH
12 V RECEPT
FWD BILGE
MID BILGE
AFT BILGE
BATT PRL
TRIM PLANES
ACCY 1
ACCY 2

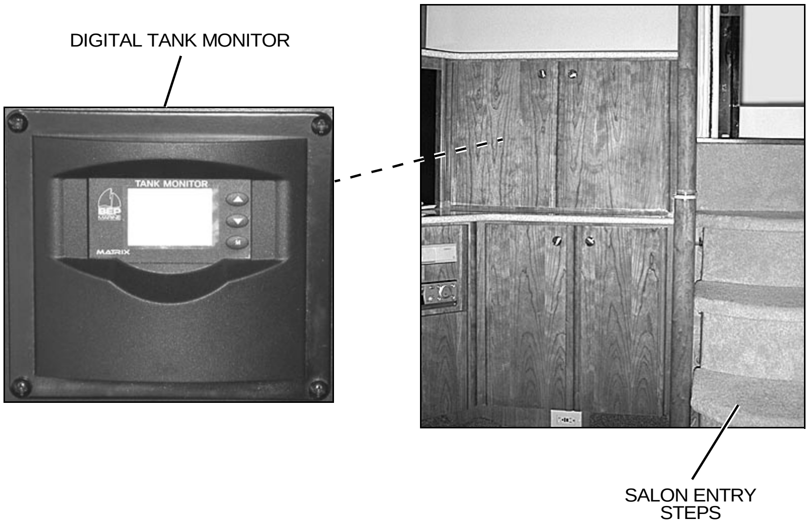
Depth Sounder Thru-hull Transducer:

- Located in the engine room, forward of the ladder.


TRANSDUCER
ENGINE ROOM LADDER

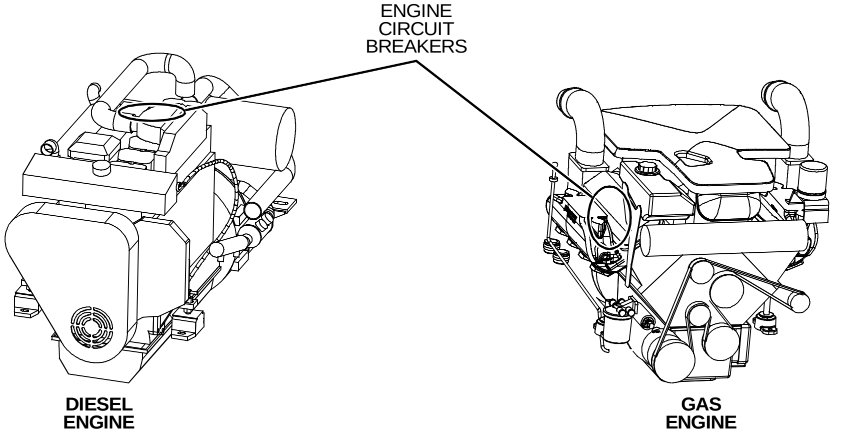
Digital Tank Monitor:

- Located inside the electrical cabinet on the starboard side of the salon.


DIGITAL TANK MONITOR
TANK MONITOR
MATRIX
SALON ENTRY STEPS

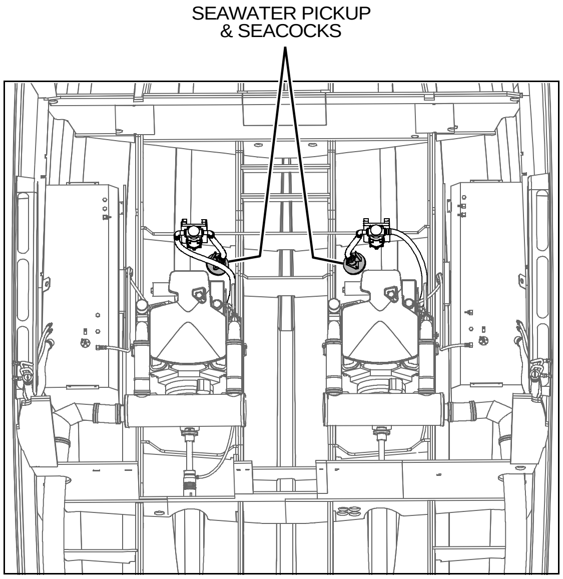
Engine Circuit Breaker:

- Located on each engine.


ENGINE CIRCUIT BREAKERS
DIESEL ENGINE
GAS ENGINE

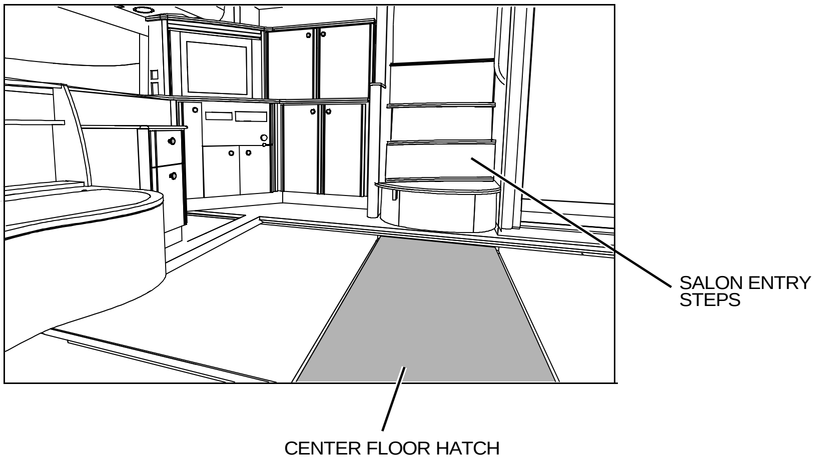
Engine Cooling System Seawater Intake Seacocks:

- Located in the engine room, forward of each engine.


SEAWATER PICKUP & SEACOCKS

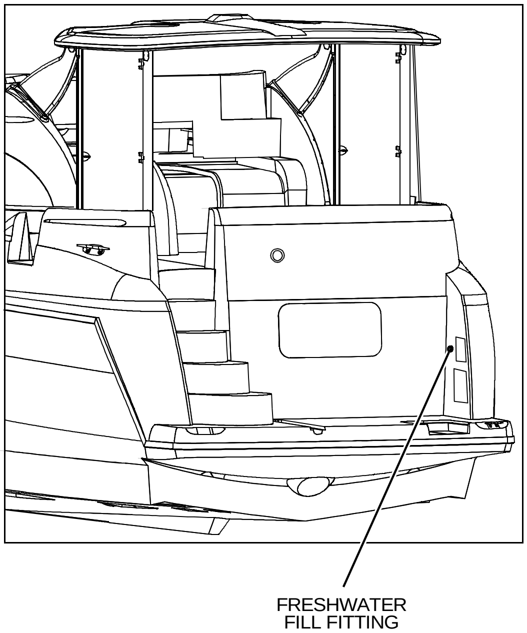
Engine Room Access:

- Access the engine room through the center floor hatch in the salon.


SALON ENTRY STEPS
CENTER FLOOR HATCH

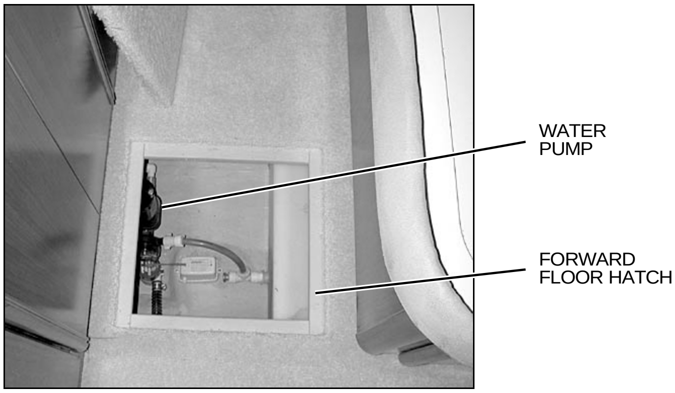
Freshwater Fill:

- Located on the starboard aft deck above the swim platform.


FRESHWATER FILL FITTING

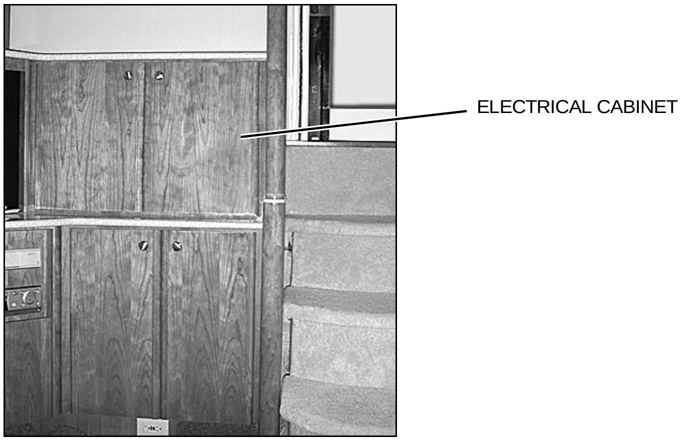
Freshwater Pump:

- Located in the aft cabin.
- Access is through the forward floor hatch.


WATER PUMP
FORWARD FLOOR HATCH

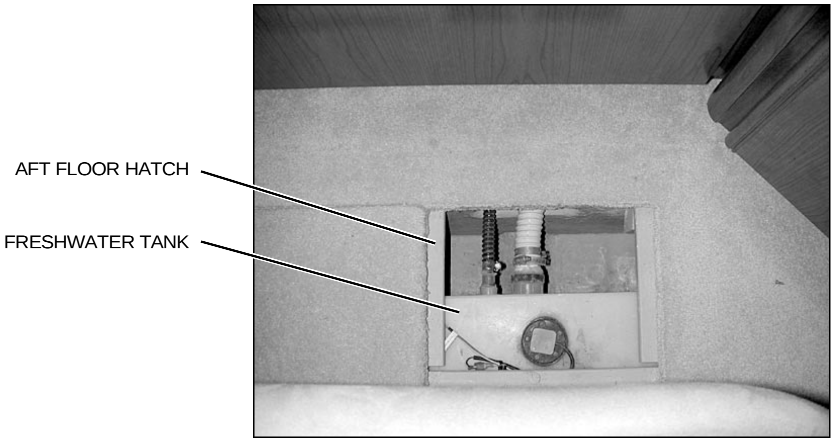
Freshwater Pump Switch:

- Located on the DC panel inside the electrical cabinet on the starboard side of the salon.


ELECTRICAL CABINET

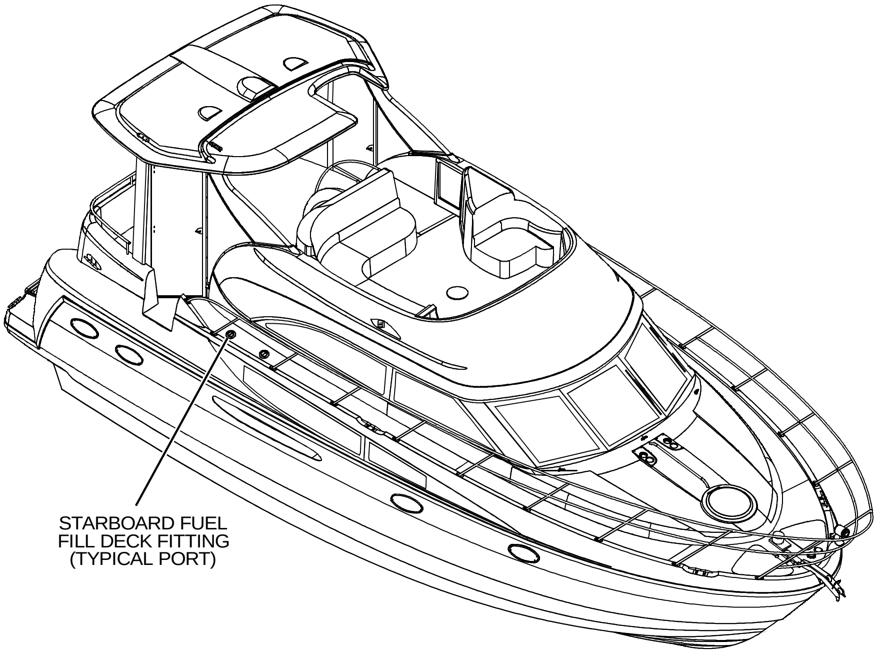
Freshwater Tank:

- Located in the aft cabin.
- Access is through the aft floor hatch.


AFT FLOOR HATCH
FRESHWATER TANK

Fuel Fill Deck Fittings:

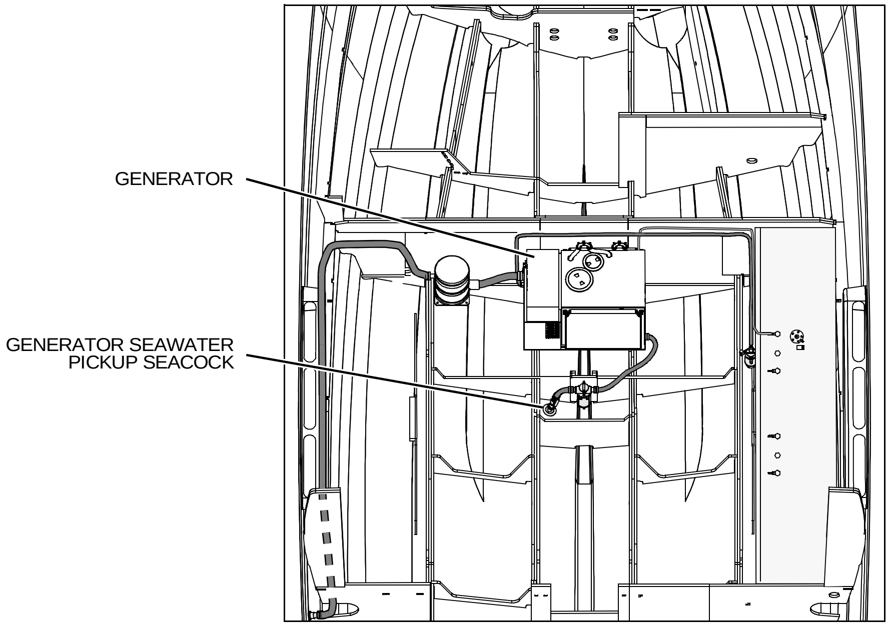
- Located on the port and starboard deck trails.


STARBOARD FUEL FILL DECK FITTING (TYPICAL PORT)

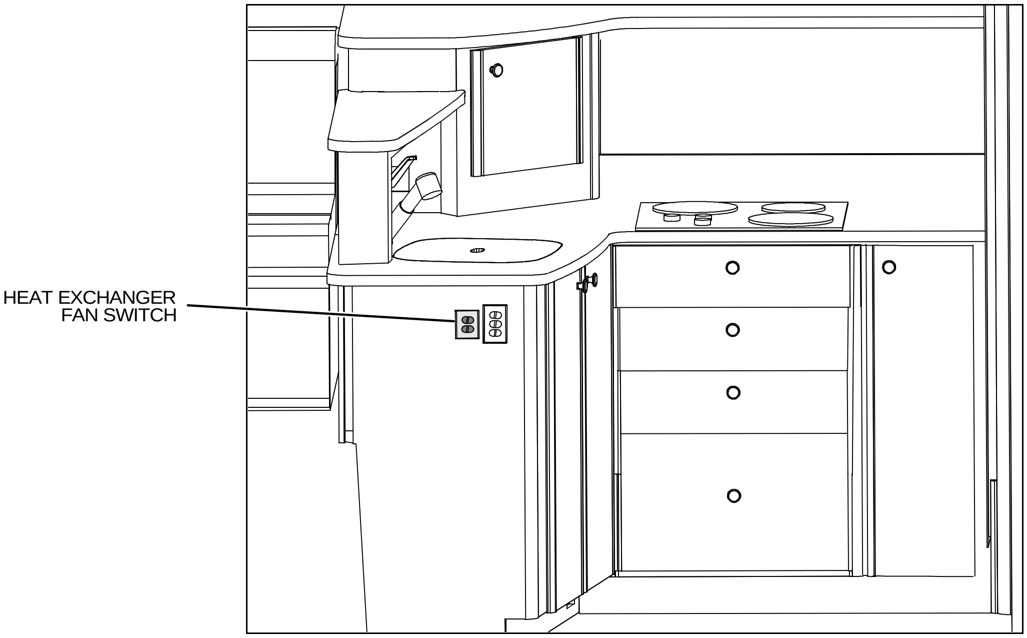
Fuel Tanks:
- Located on each side of the engine room.

Generator (If Equipped):
- Located in the engine room.

Generator Seawater Pickup Seacock (If Equipped):
- Located in the engine room, forward of the ladder.

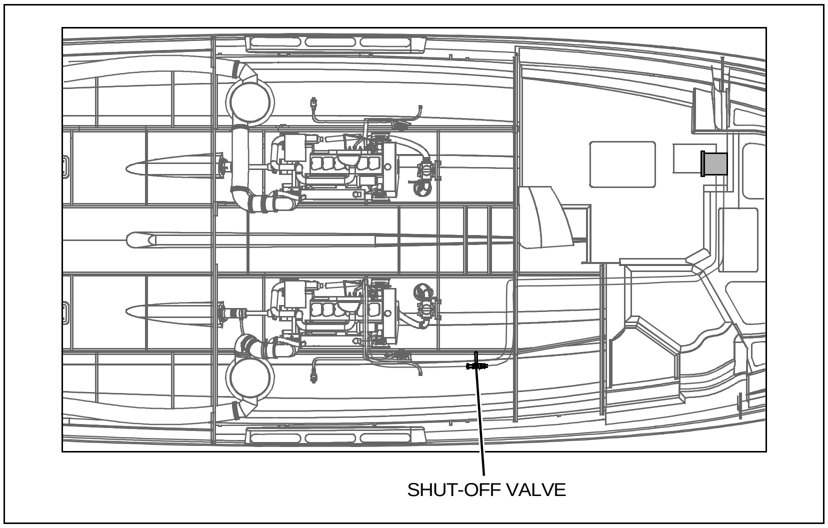

GENERATOR
GENERATOR SEAWATER PICKUP SEACOCK

Heat Exchanger Fan Switch (If Equipped):
- Located to the left of the galley sink.


HEAT EXCHANGER FAN SWITCH

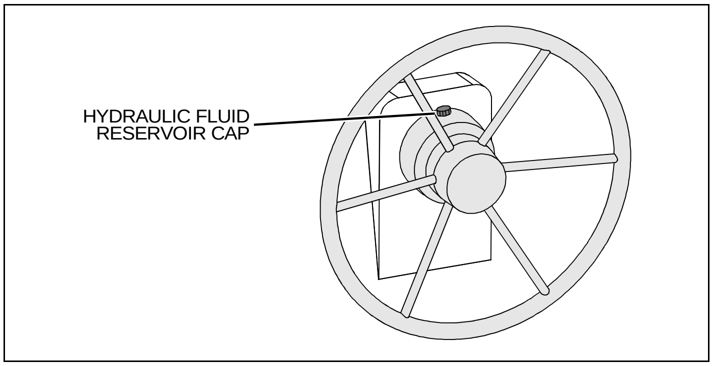
Heat Exchanger Shut-off Valve (If Equipped):

- Located in the engine room, forward of the starboard engine.


SHUT-OFF VALVE

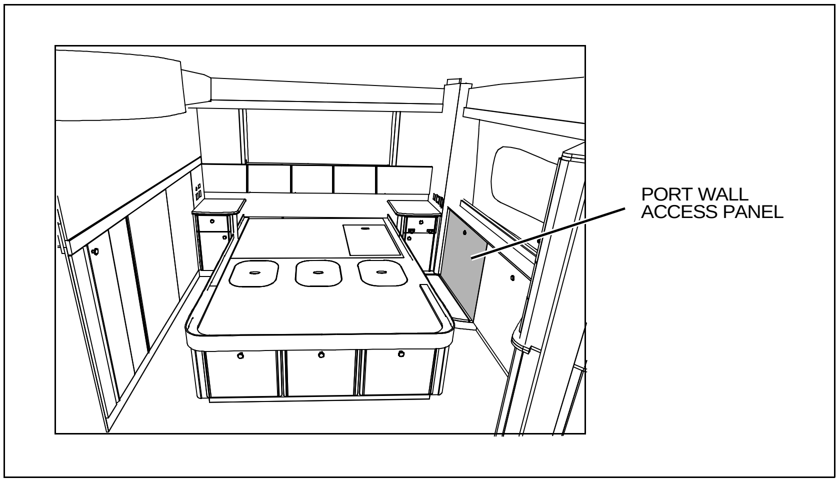
Hydraulic Steering Fluid Reservoirs:

- Located on the steering column at each helm.


HYDRAULIC FLUID
RESERVOIR CAP

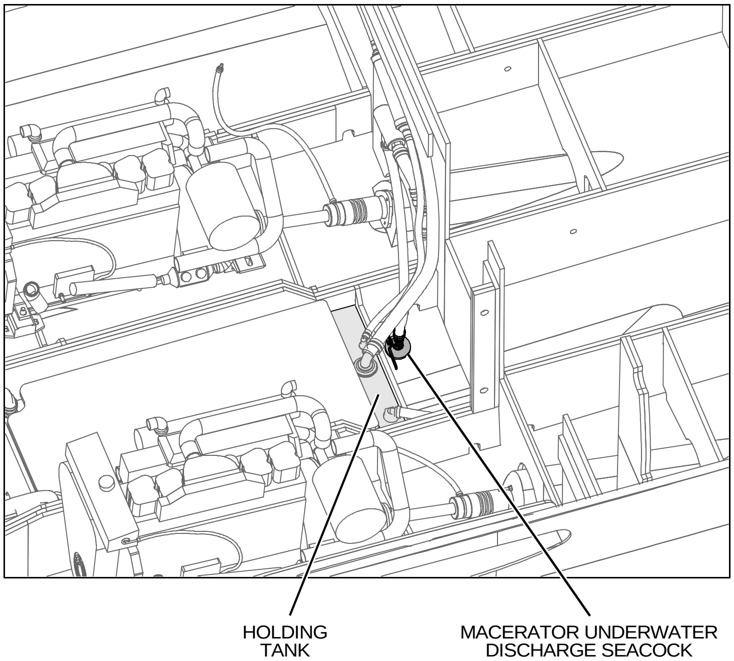
Inverter (If Equipped):

- Located in the aft cabin.
- Access is through the aft port wall access panel.


PORT WALL
ACCESS PANEL

Macerator Underwater Discharge Seacock (If Equipped):

- Located in the engine room, aft of the holding tank.

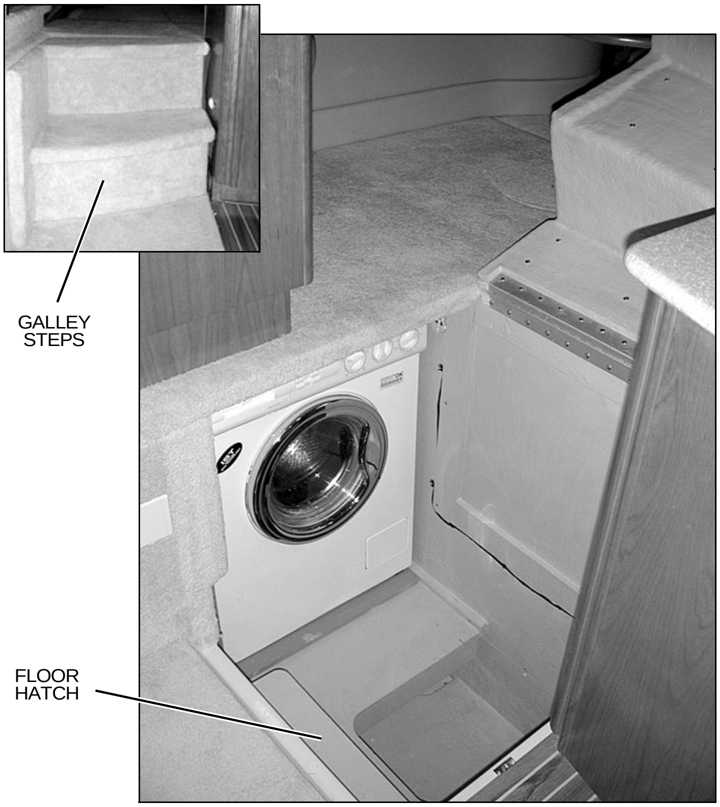

HOLDING TANK
MACERATOR UNDERWATER DISCHARGE SEACOCK

Seawater Washdown Intake Seacock:

- Located inside the floor hatch in the utility room.
- Access the utility room by lifting up the galley steps.

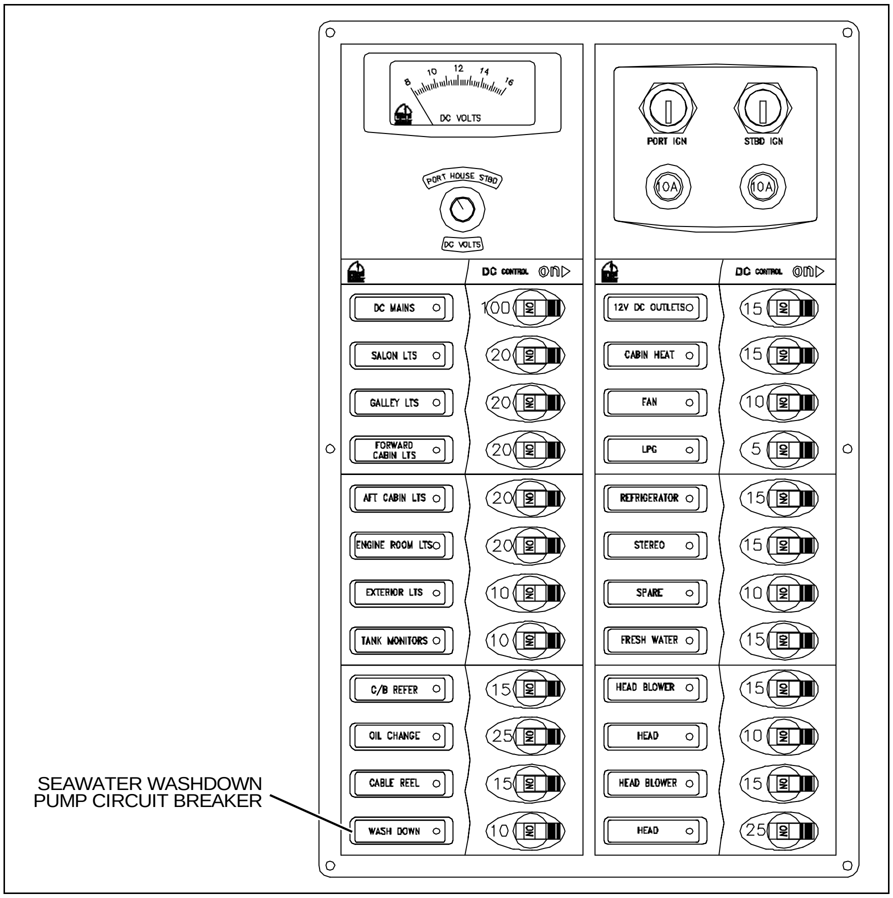
Seawater Washdown Pump:

- Located inside the floor hatch in the utility room.


GALLEY STEPS
FLOOR HATCH

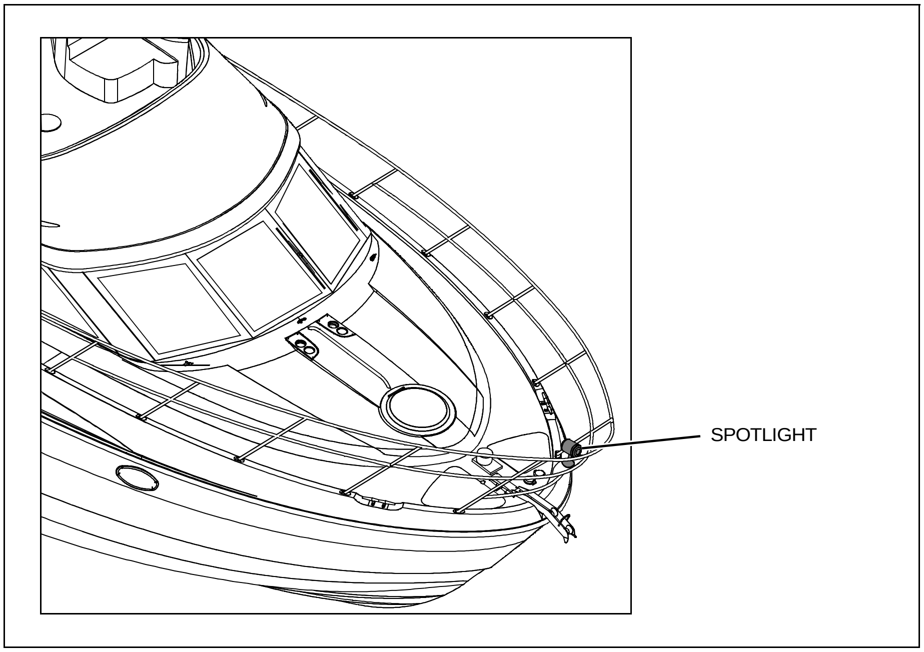
Seawater Washdown Pump Circuit Breaker:

- Located on the DC panel, inside the electrical cabinet.


8
10
12
14
16
DC VOLTS
PORT HOUSE STBD
DC VOLTS
PORT IGN
STBD IGN
10A
10A
DC CONTROL on
DC CONTROL on
DC MAINS 100
SALON LTS 20
GALLEY LTS 20
FORWARD CABIN LTS 20
AFT CABIN LTS 20
ENGINE ROOM LTS 20
EXTERIOR LTS 10
TANK MONITORS 10
C/B REFER 15
OIL CHANGE 25
CABLE REEL 15
WASH DOWN 10
12V DC OUTLETS 15
CABIN HEAT 15
FAN 10
LPG 5
REFRIGERATOR 15
STEREO 15
SPARE 10
FRESH WATER 15
HEAD BLOWER 15
HEAD 10
HEAD BLOWER 15
HEAD 25
SEAWATER WASHDOWN PUMP CIRCUIT BREAKER

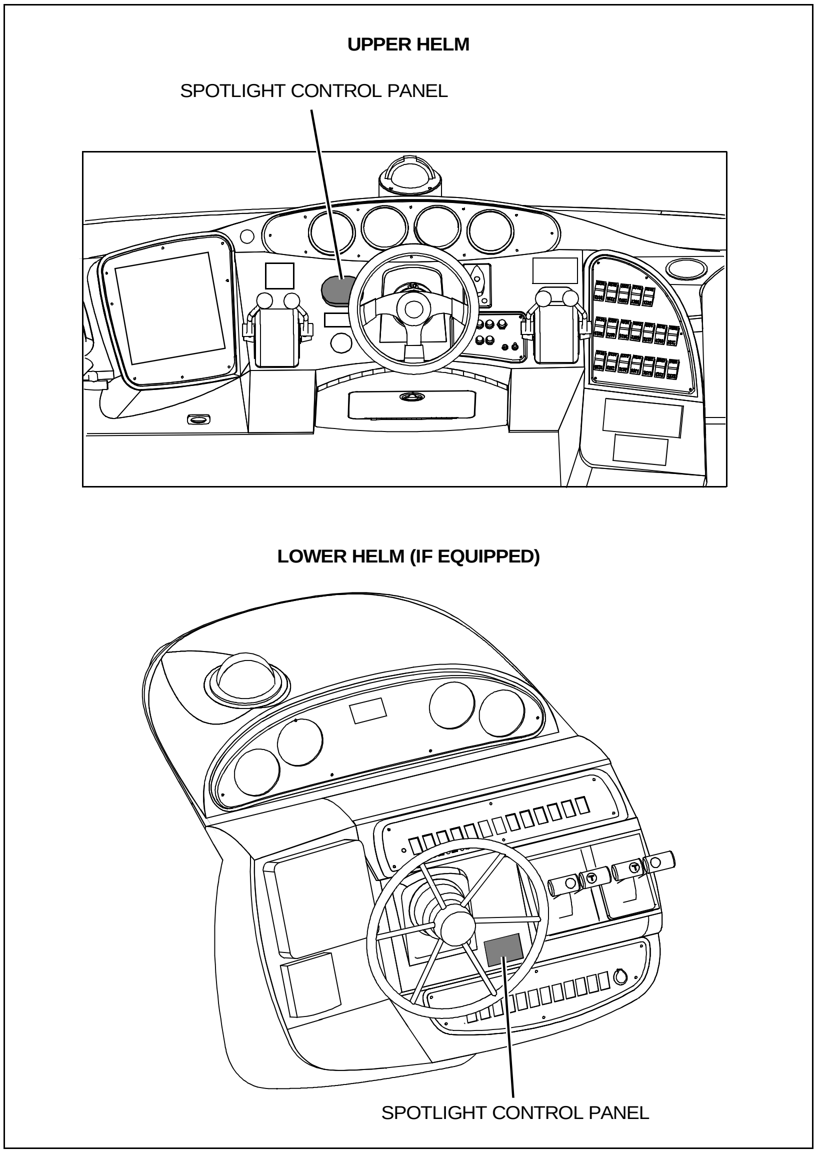
Spotlight (If Equipped):

- Located on the bow.



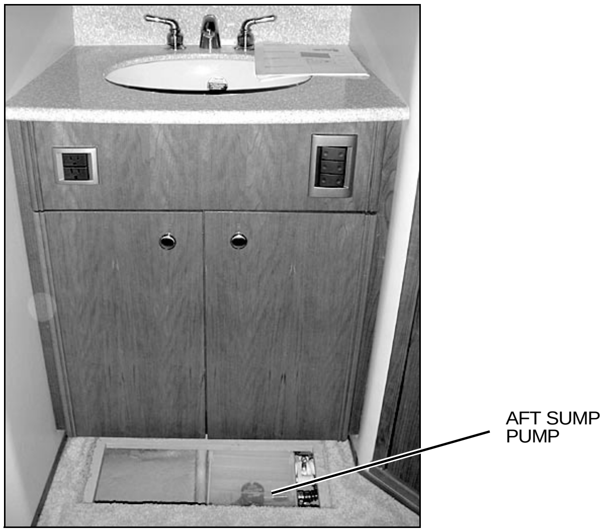
Spotlight Control Panels (If Equipped):

- Located on the upper helm dash and lower helm dash (if equipped).


UPPER HELM
SPOTLIGHT CONTROL PANEL
LOWER HELM (IF EQUIPPED)
SPOTLIGHT CONTROL PANEL

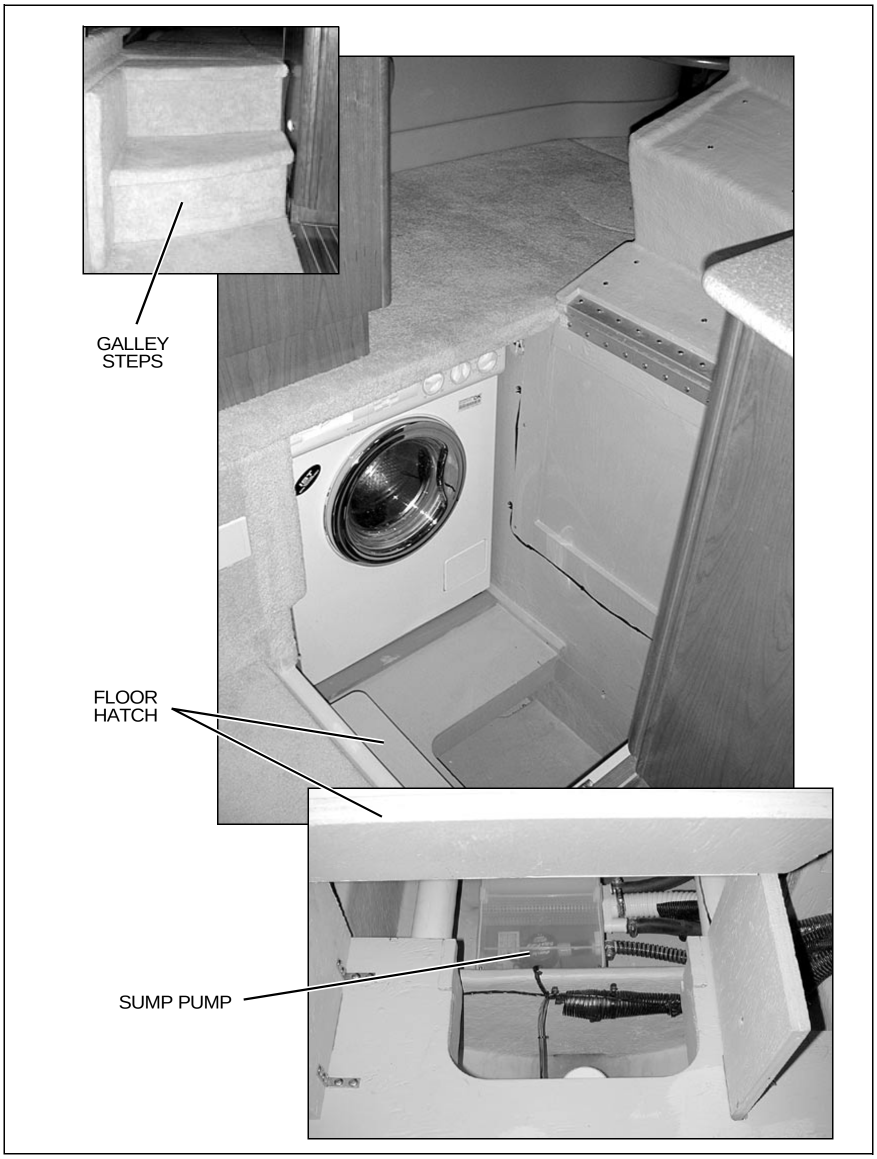
Sump Pump - Aft:

- Located in the aft cabin.
- Access is through the floor hatch in front of the vanity.


AFT SUMP PUMP

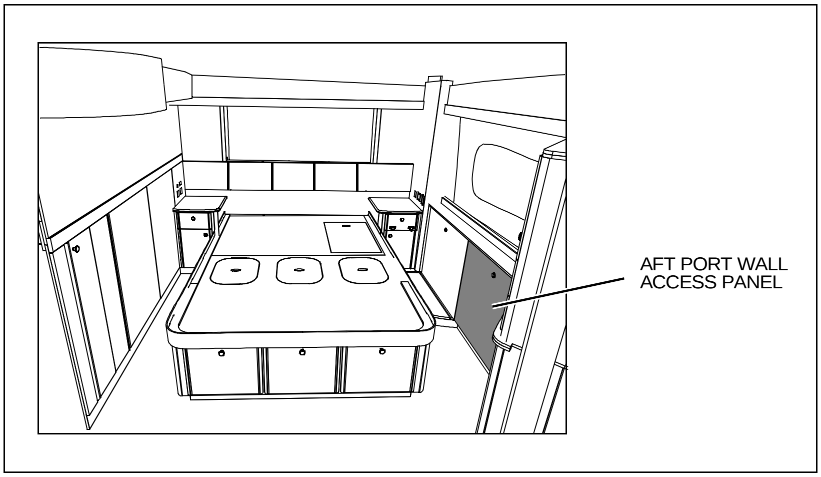
Sump Pump - Forward:

- Located inside the floor hatch in the utility room.
- Access the utility room by lifting up the galley steps.


GALLEY STEPS
FLOOR HATCH
SUMP PUMP

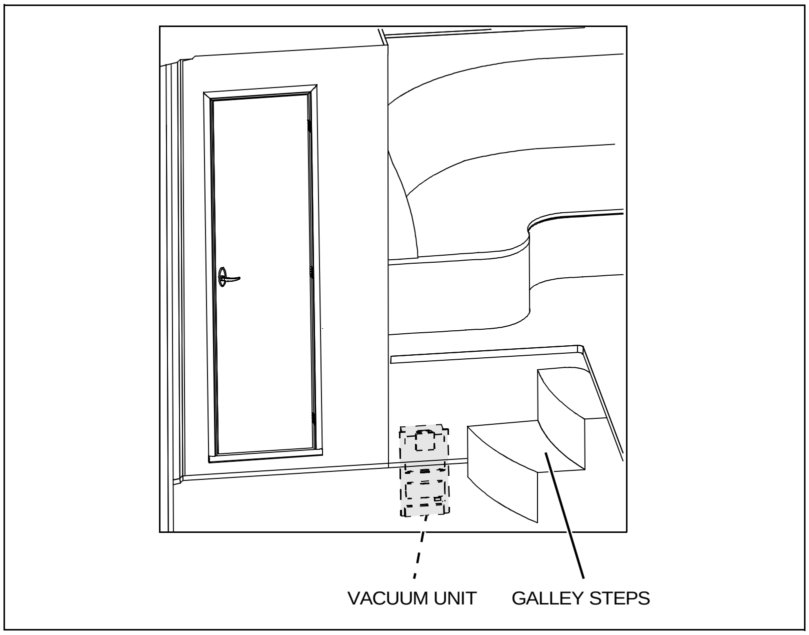
Trim Tab Hydraulic Fluid Reservoir:

- Located in the aft cabin.
- Access is through the aft port wall access panel.


AFT PORT WALL ACCESS PANEL

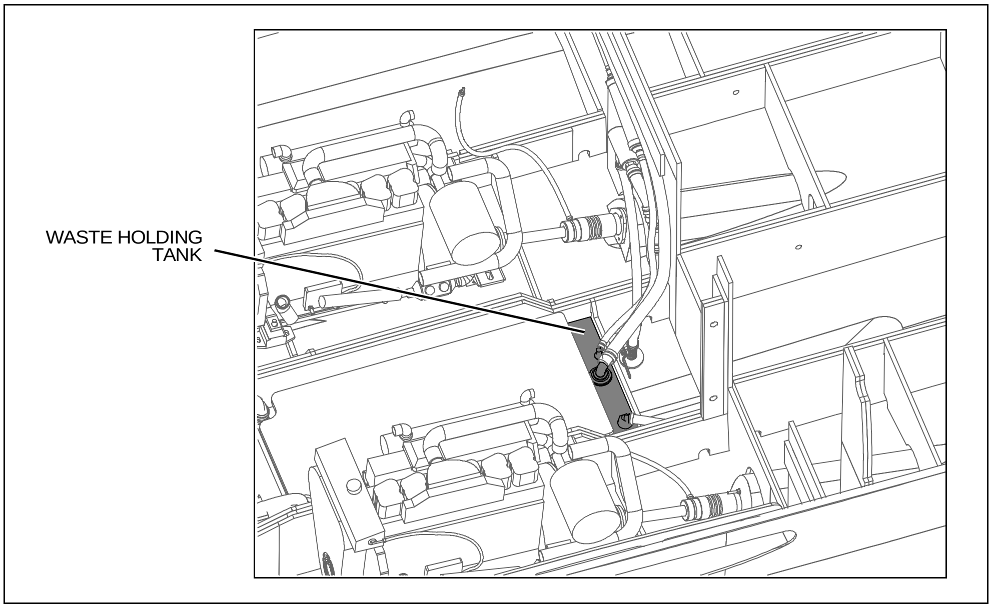
Wall Vacuum Unit (If Equipped):

- Located in the utility room on the starboard forward wall.
- Access the utility room by lifting up the galley steps.


VACUUM UNIT
GALLEY STEPS

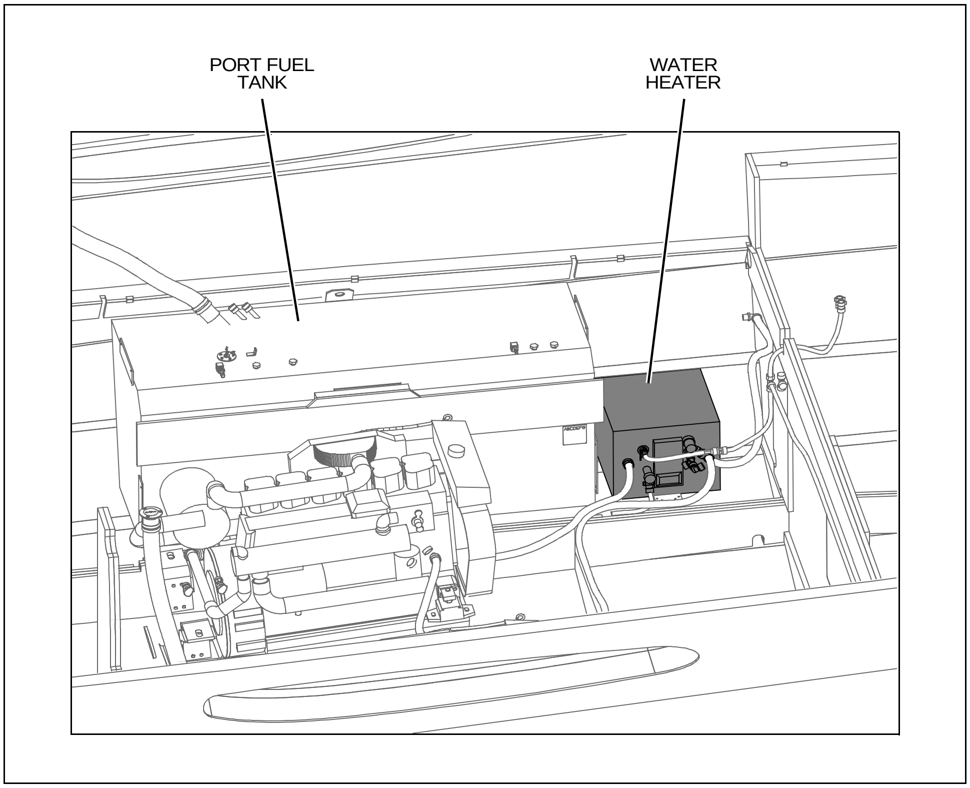
Waste Holding Tank:

- Located in the engine room.


WASTE HOLDING TANK

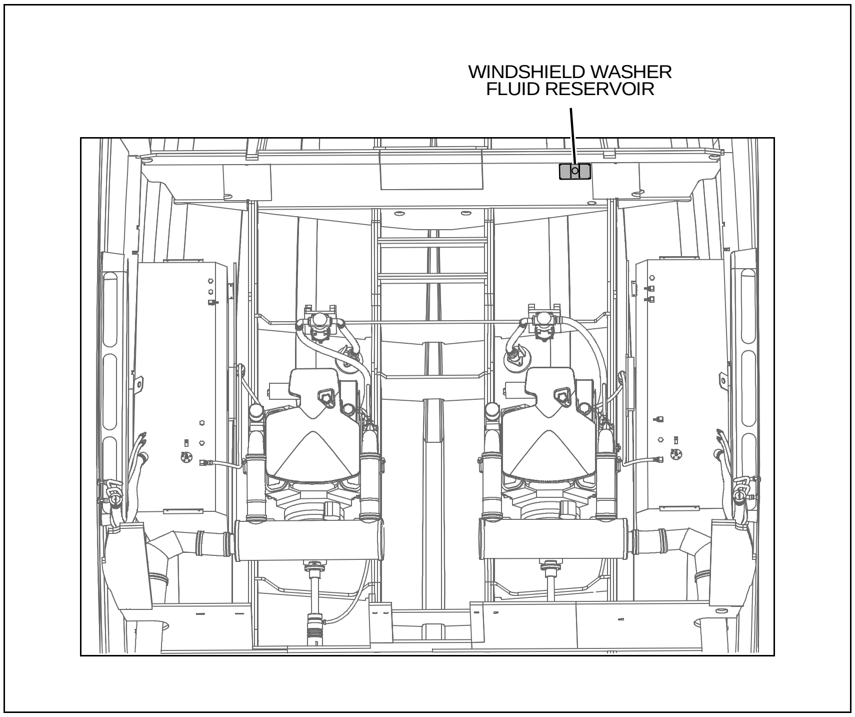
Water Heater:

- Located in the engine room, forward of the port fuel tank.


PORT FUEL TANK
WATER HEATER

Windshield Washer Fluid Reservoir (If Equipped):

- Located on the forward bulkhead, on the starboard side of the engine room.


WINDSHIELD WASHER FLUID RESERVOIR

Chapter 3: Propulsion & Related Systems

Engines

Read the engine operation and maintenance manuals ***before*** starting or doing any maintenance on the engines.

Engine Cooling System

⚠ CAUTION!

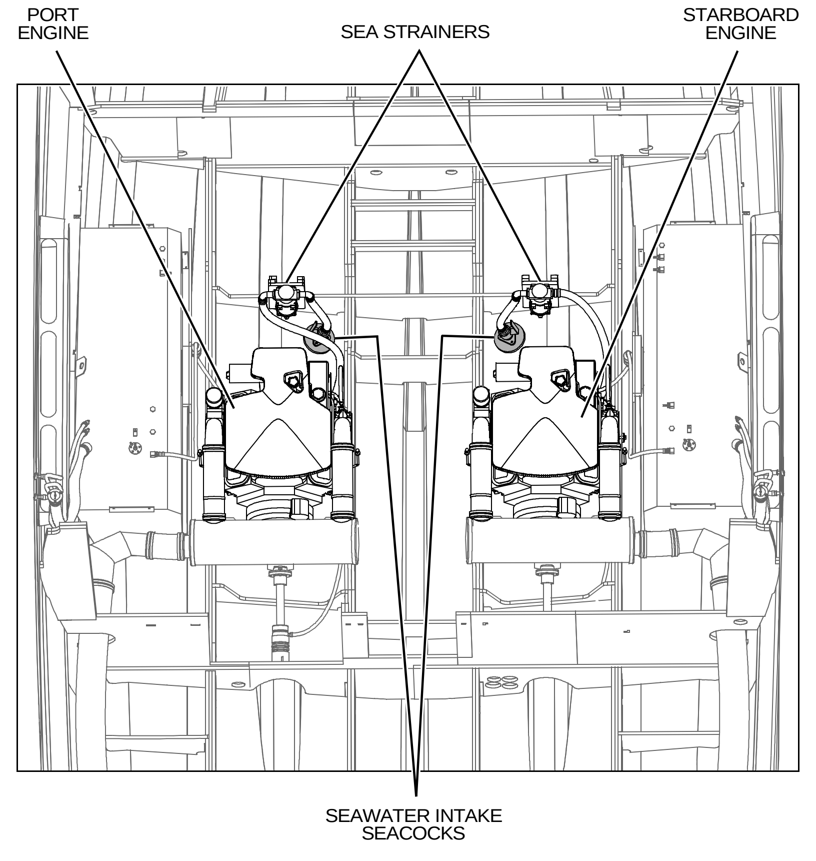
SYSTEM DAMAGE HAZARD!

The engine cooling system's seacocks for both engines *must* be *Opened before* the engines are started. And they must remain *Open* while the engines are running.

The engine cooling system circulates seawater through the engines and also uses a freshwater cooling system to reduce engine temperatures.

- Make sure the seawater intake seacocks for both engines are ***Open before*** starting the engines and keep the seacocks ***Open*** while the engines are running.
- The cooling system's seawater strainers should be checked for leaks and debris ***every time*** you use your yacht.
- For instructions on how to clean the seawater strainers, see the *Seawater Systems* section of this *Owner's Manual*.

ENGINE COOLING SYSTEM ROUTING



Exhaust System

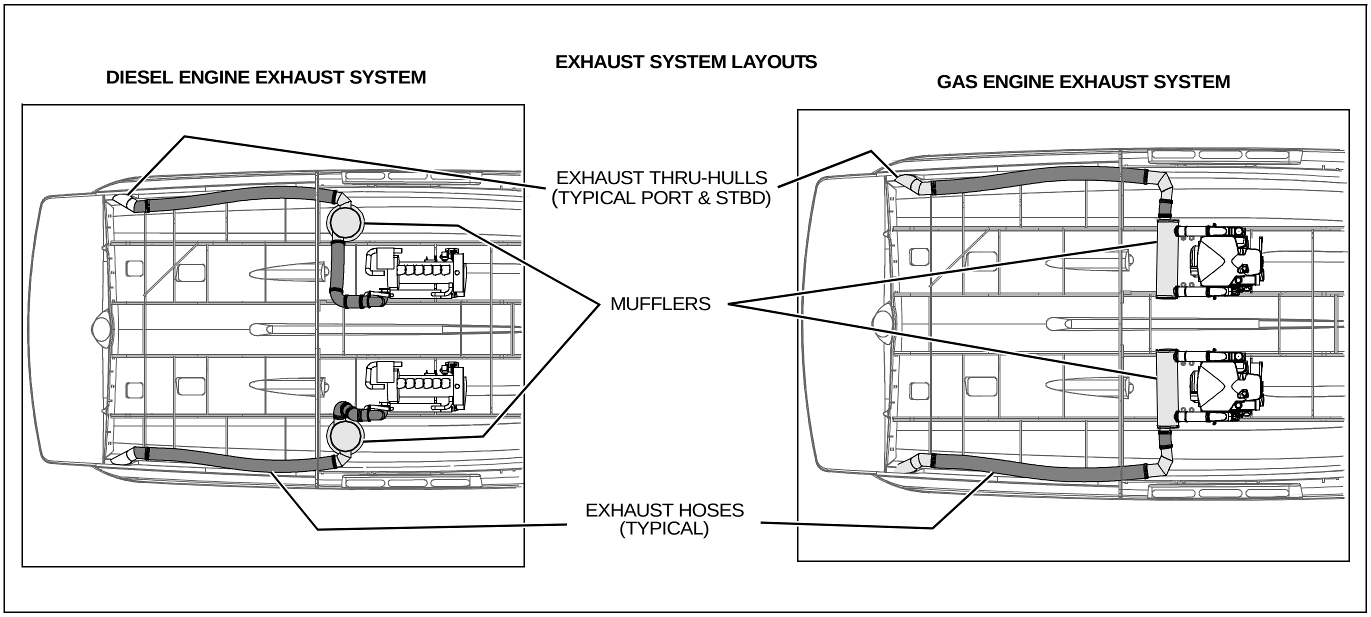
⚠ DANGER!

CO
DANGER
CARBON MONOXIDE

CARBON MONOXIDE POISONING HAZARD!

Leaking engine and/or generator exhaust is a source of dangerous carbon monoxide gas (CO).

- **Check *all* exhaust systems *before* each trip.**
- **Look for leaks in the exhaust systems of the engines and the generator.**
- **Look for discoloration, water leaks, carbon or stains around *all* joints.**
- **Make sure *all* of the exhaust clamps are in place and secured.**
- **Make sure the ventilation systems work and are *not* obstructed or restricted.**
- **To reduce the chance of CO entering the living spaces, fill any gaps around engine room plumbing, cableways, exhaust systems, doors, hatches, and access panels.**


EXHAUST SYSTEM LAYOUTS
DIESEL ENGINE EXHAUST SYSTEM
GAS ENGINE EXHAUST SYSTEM
EXHAUST THRU-HULLS (TYPICAL PORT & STBD)
MUFFLERS
EXHAUST HOSES (TYPICAL)

- The exhaust system is designed to keep seawater out of the engines in most sea conditions.
- However, do ***not*** anchor the stern to sea or shut the engines ***Off*** if high seas might flood the exhaust system.
- ***Always*** consider the sea conditions ***before*** anchoring or shutting ***Off*** the engines.

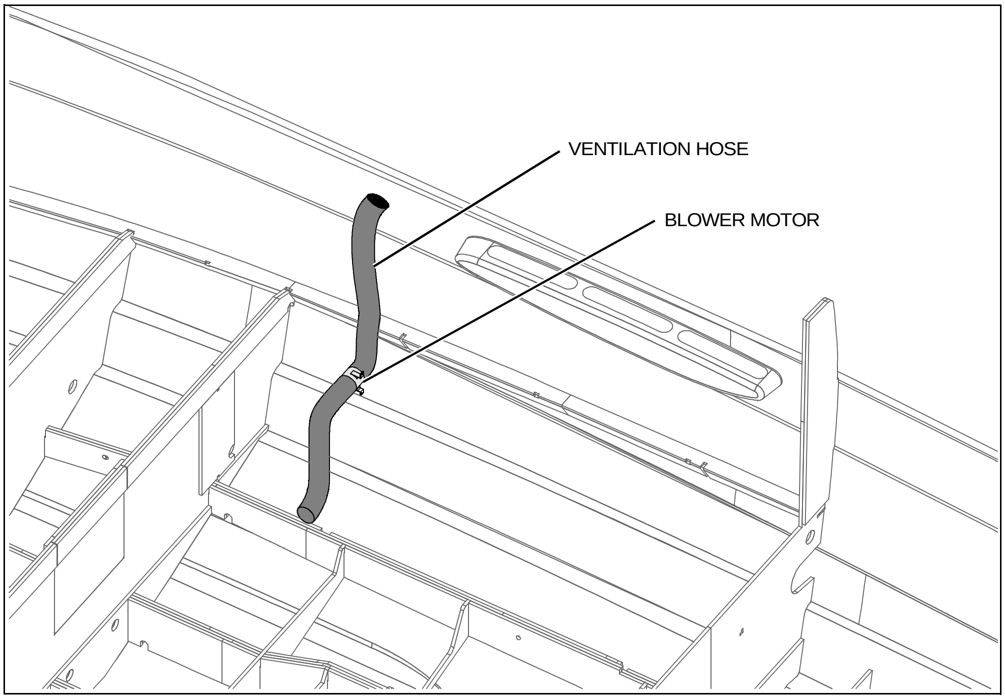
Engine Room Ventilation System

⚠ WARNING!

FIRE/EXPLOSION HAZARD

- **Use of the blower system is *NOT A GUARANTEE* that explosive fumes have been removed.**
- ***BEFORE* starting the engines or the generator *ALWAYS* use the "sniff test" to check the bilge areas for fuel vapors.**
- **If you smell fuel, Do *NOT* start the engines and/or generator and Do *NOT* turn *On* any electrical devices.**
- **If you smell fuel and the engines and/or generator are already running, shut *Off* the engines and/or generator and turn *Off all* electrical devices. Investigate *immediately.***
- **Do *NOT* obstruct or modify the ventilation system.**

BILGE BLOWER SYSTEM ROUTING (TYPICAL)



- The bilge blowers remove explosive fumes from the engine room area.
- Fresh air is drawn into this compartment through the vents.

To make sure the bilge areas are properly ventilated:

- ***Always*** run the bilge blowers for at least four minutes ***before*** starting the engines or the generator.
- Use the "sniff test" to check the bilge areas for fuel vapors ***before*** starting the engines or the generator.
- Continue to run the blowers until your yacht has reached cruising speed.
- ***Always*** run the blowers when operating the yacht below cruising speed.

Fuel System

⚠ WARNING!

FIRE, EXPLOSION AND OPEN FLAME HAZARD!

- **It is very important that the fuel system be inspected thoroughly the first time it is filled and at each subsequent filling.**
- **Read the fueling instructions in the engine operation manual and the *Cruiser & Yacht Owner's Manual Supplement.***

⚠ CAUTION

Avoid the storage or handling of gear near the fuel lines, fittings and tank.

⚠ CAUTION

SYSTEM DAMAGE HAZARD!

Use of any methanol, gasohol, or alcohol based fuel additive will damage the fuel system.

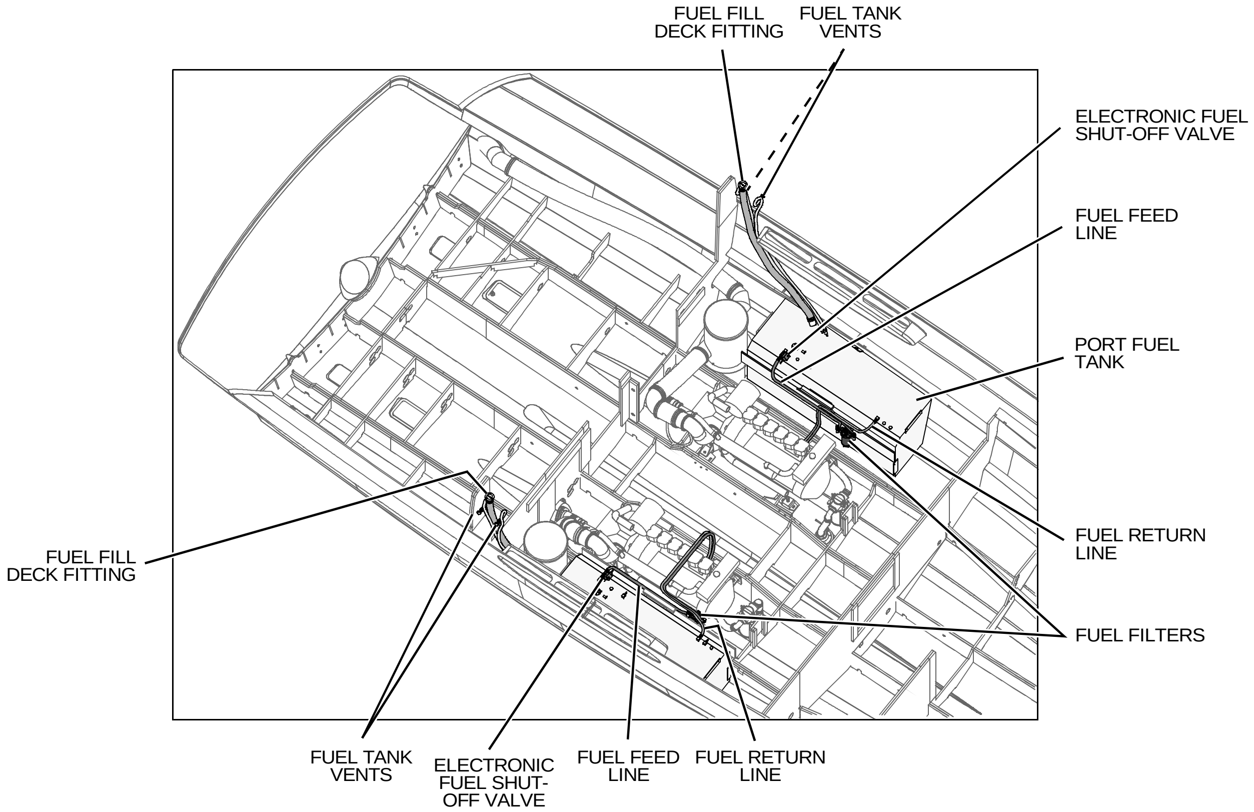
NOTICE

- **On diesel engine models, air in the diesel supply system can stop an engine or severely restrict performance.**
- **If you suspect air in the fuel lines, refer to your engine operation manual for detailed instructions on how to *bleed* the system.**

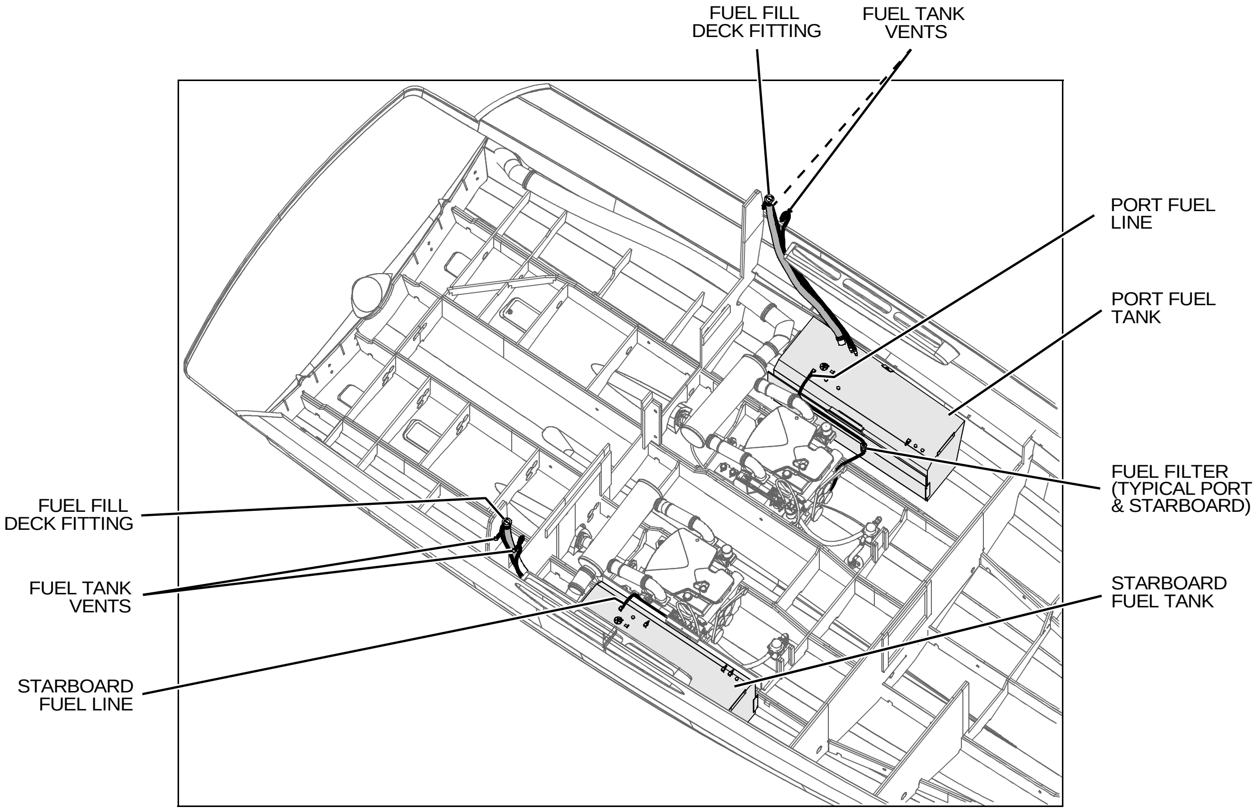
NOTICE

Carefully read the fuel section of both the *Cruiser & Yacht Owner's Manual Supplement* and the engine operation manual, paying special attention to the subject of *fuel recommendations*.

DIESEL ENGINE FUEL LINE ROUTING (IF EQUIPPED)


FUEL FILL DECK FITTING
FUEL TANK VENTS
ELECTRONIC FUEL SHUT-OFF VALVE
FUEL FEED LINE
PORT FUEL TANK
FUEL RETURN LINE
FUEL FILTERS
FUEL FILL DECK FITTING
FUEL TANK VENTS
ELECTRONIC FUEL SHUT-OFF VALVE
FUEL FEED LINE
FUEL RETURN LINE

GAS ENGINE FUEL LINE ROUTING (IF EQUIPPED)


FUEL FILL DECK FITTING
FUEL TANK VENTS
PORT FUEL LINE
PORT FUEL TANK
FUEL FILTER (TYPICAL PORT & STARBOARD)
STARBOARD FUEL TANK
FUEL FILL DECK FITTING
FUEL TANK VENTS
STARBOARD FUEL LINE

Fuel Fills & Vents

- The fuel fill fittings are marked Gas or Diesel.
- If you have problems filling either fuel tank; see if the fuel fill hose or fuel tank vent hose is kinked or collapsed.
- If there are no visible signs of a problem, contact your local dealer.

Anti-siphon Valves (Gas Engines Only)

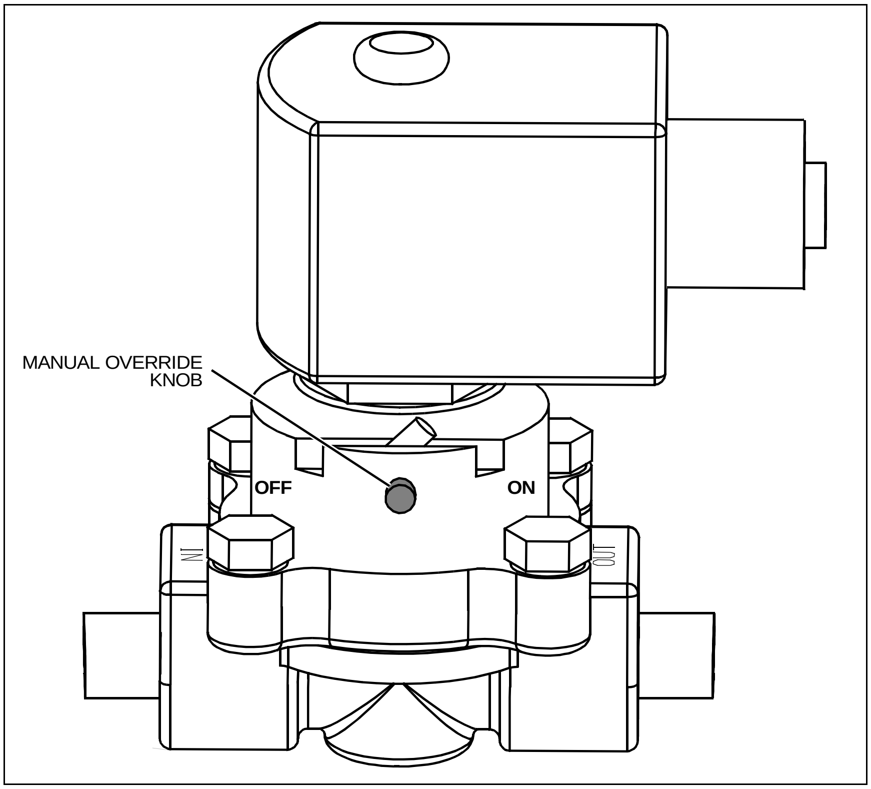
NOTICE

- **If an engine running problem is diagnosed as fuel starvation, check the anti-siphon valve.**
- **If the valve is stuck or clogged, change or replace it while the engine is *shut down*.**
- ***NEVER* run either engine with its anti-siphon valve removed, except in an emergency.**

- The anti-siphon valves are vital fuel system parts.
- If a fuel line ruptures, this valve will prevent the fuel from siphoning from the tank.
- The valves are located on the fuel tanks, where the fuel feed lines attach to the tanks.
- These valves are spring loaded and are opened by fuel pump vacuum.

Electronic Fuel Shut-off Valves (Diesel Engines Only)

- Your diesel engines are equipped with electronic fuel shut-off valves.
- When you start your engines, the electronic fuel shut-off valves turn ***On*** (open) to allow fuel to the engines.
- When you turn off the engines, the electronic fuel shut-off valves turn ***Off*** (close), stopping the fuel from going to the engines.
- If one of the electronic fuel shut-off valves malfunction, it has a manual override.
- Turn the manual override clockwise to open the electronic fuel shut-off valve.



Gas Engine Fuel Filters

- The fuel pickup tube located inside each fuel tank is equipped with a fine mesh screen filter.
- In addition, a fuel filter is installed on the fuel line.
- Periodically replace the fuel filters to make sure they remain clean and free of debris.
- Talk to your selling dealer or local marina about fuel additives that help prevent fungus or other buildup in your fuel tanks.

Fuel Filter/Water Separators (Diesel Engines Only)

NOTICE

Refer to the fuel filter/water separator manual for important service instructions.

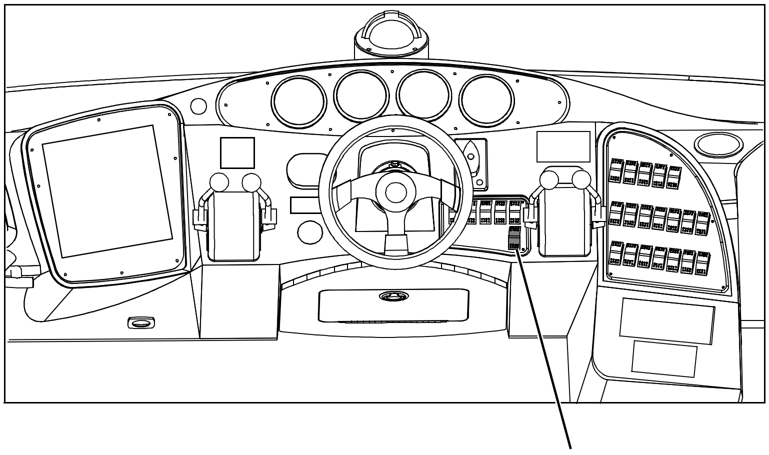
Fuel Transfer Pump (Diesel Engines Only) (If Equipped)

⚠ CAUTION

ENVIRONMENTAL HAZARD!

- ***NEVER* transfer fuel into a full (or nearly full) fuel tank.**
- **Fuel transferred into a full tank may spill overboard through the tank venting system.**

The fuel transfer pump can be used to transfer fuel to a nearly empty tank or to equalize the fuel level in each tank.



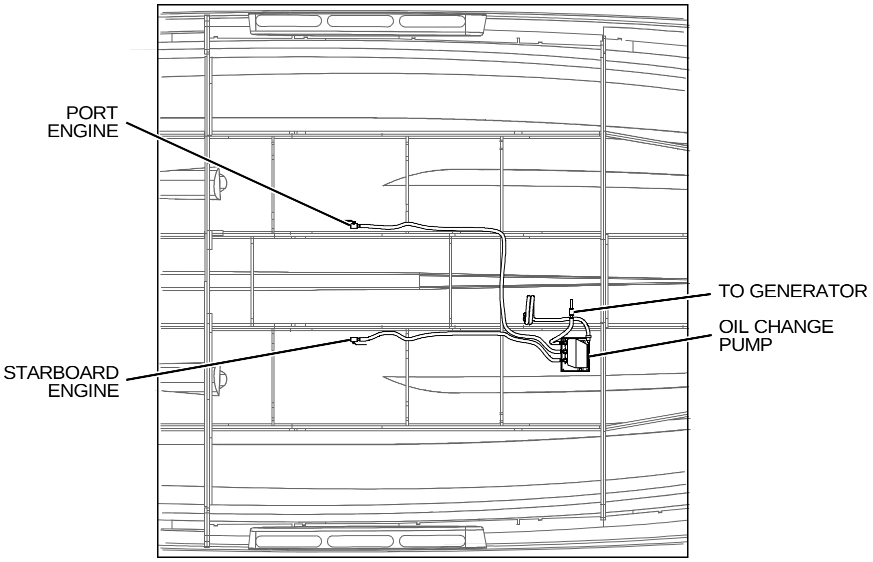
1. The house battery switch must be turned ***On*** for the fuel transfer pump to run.
2. ***Before*** transferring fuel, check the fuel gauges to make sure that fuel is not about to be transferred into a full (or nearly full) tank. For accuracy, check the fuel gauges when the boat is ***not*** underway.
3. After checking the fuel levels, hold the fuel transfer switch ***On*** to the side you want to pump fuel to.
   NOTE: This switch must be ***held On*** throughout the entire fuel transfer process.
4. When the desired amount of fuel has been transferred, release the switch.

- If, after following the above instructions, the fuel transfer pump does not run, check the pump's push-to-reset breaker on the DC push-to-reset breaker panel (for the location of this panel, see Chapter 2 of this *Owner's Manual*).
- If the pump is running, but you are having problems transferring fuel, see if the fuel transfer hose or fuel tank vent hose is kinked or collapsed. If there are no visible signs of a problem, contact your local dealer.

Oil Change System (If Equipped) (Diesel Engines Only)

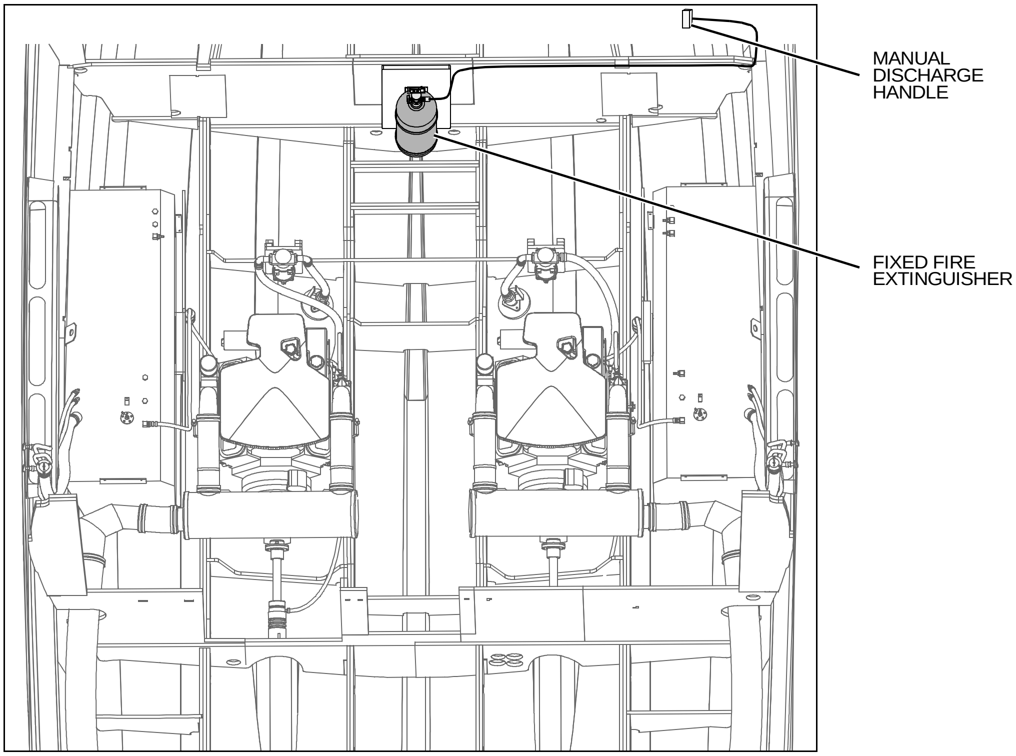
- The oil change system makes it easier to drain and refill the engine and generator oil.
- Read the oil change system instructions for information on the use of this system.

OIL CHANGE SYSTEM ROUTING (IF EQUIPPED)


PORT ENGINE
TO GENERATOR
OIL CHANGE PUMP
STARBOARD ENGINE

Fire Suppression System (If Equipped)

- The fire suppression system is designed to extinguish engine room fires.
- ***Before*** using your yacht for the first time, read the fire suppression system's instruction and maintenance manual and follow ***all*** warnings.
- The system will discharge automatically whenever direct heat from a fire is detected in the engine room.
- The system can be discharged manually by pulling the T-handle (labeled "FIRE") at the helm.
- The system can only be discharged *once*.
- After the system is discharged it ***must*** be refilled and refurbished ***before*** it can be used again.


MANUAL DISCHARGE HANDLE
FIXED FIRE EXTINGUISHER

Shaft-Transmission Alignment

⚠ CAUTION!

SYSTEM DAMAGE HAZARD!

- **If you suspect a shaft-transmission alignment problem, have a qualified mechanic inspect the alignment as soon as possible.**
- **Continued use may lead to premature engine, transmission, shaft, shaft seal and/or hull damage!**

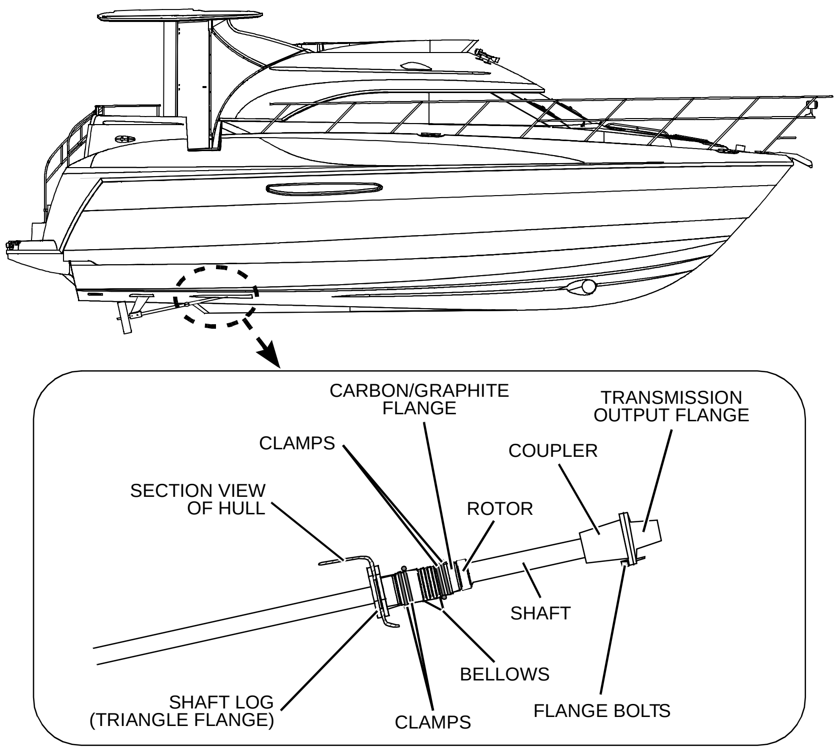
Alignment between the engine transmission output shaft and the propeller is critical. The alignment was performed at the factory and was rechecked by the dealer after the yacht had been in the water for 48 hours.

- An alignment inspection should be performed by a marine mechanic as part of the routine maintenance program after the initial 30 hours of operation, then every 60 hours and whenever unusual noise or vibration is noticed.
- Shaft-transmission alignment should be performed by a marine mechanic since it requires moving the engine and prop shaft.
- To insure proper alignment after a haul out or dry storage, wait 48 hours after launching ***before*** final alignment adjustments by a marine mechanic are made.

Shaft Log Packless Sealing System

The shaft log packless sealing system's shaft seal is a maintenance-free, watertight seal that does ***not*** require packing or adjustments.

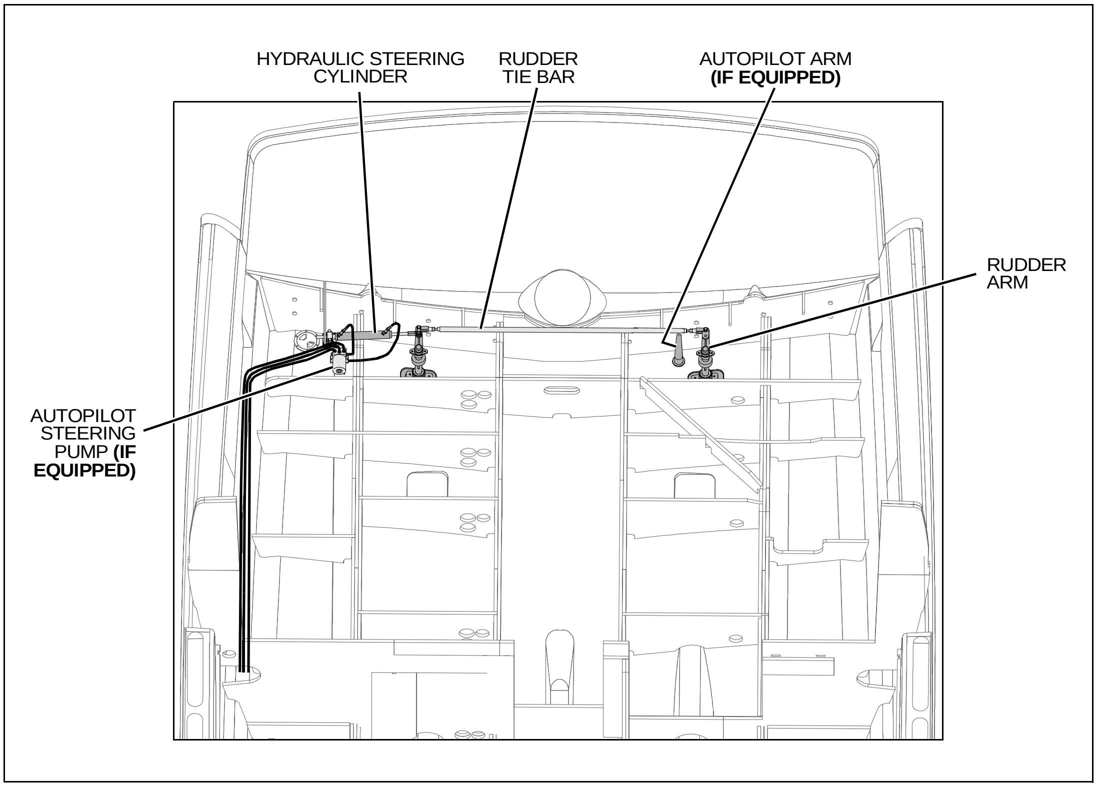
TRANSMISSION-TO-PROP SHAFT COMPONENTS (TYPICAL)


CARBON/GRAPHITE FLANGE
TRANSMISSION OUTPUT FLANGE
CLAMPS
COUPLER
SECTION VIEW OF HULL
ROTOR
SHAFT
BELLOWS
SHAFT LOG (TRIANGLE FLANGE)
CLAMPS
FLANGE BOLTS

Chapter 4: Controls & Gauges

Steering

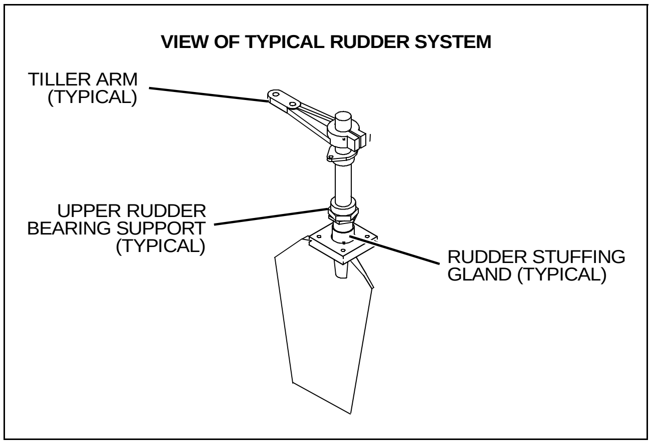
- This yacht features a hydraulic steering system.
- Check the fluid level in the hydraulic steering reservoir ***every time*** you use your yacht.
- Yacht steering is ***not*** self-centering.


HYDRAULIC STEERING CYLINDER
RUDDER TIE BAR
AUTOPILOT ARM **(IF EQUIPPED)**
RUDDER ARM
AUTOPILOT STEERING PUMP **(IF EQUIPPED)**

Rudder Stuffing Gland

- The rudder stuffing gland is part of the assembly where the rudders emerge from the bottom of the yacht.
- The shaft stuffing gland should ***not*** leak any water.
- If a leak develops, it can usually be stopped by tightening the packing gland nuts ***slightly***.
- ***Do not*** over tighten the packing gland nuts.
- If stuffing gland leakage becomes excessive, packing replacement can be performed as follows:

1. Remove the yacht from the water.
2. Loosen the packing gland nuts and back the packing gland from the sleeve.
3. Remove the old packing.
4. Wrap new packing around the shaft.
5. Cut the rings with a razor blade at an angle approximately 30 degrees to the long axis of the shaft.
6. Stagger the ends of each ring around the shaft and insure that the rings are at the bottom in the sleeve.
7. Tighten the packing gland nuts until resistance is felt.


VIEW OF TYPICAL RUDDER SYSTEM
TILLER ARM (TYPICAL)
UPPER RUDDER BEARING SUPPORT (TYPICAL)
RUDDER STUFFING GLAND (TYPICAL)

Autopilot (If Equipped)

⚠ WARNING!

- ***NEVER*** **leave the helm while the autopilot system is** ***On*****!**
- **A qualified operator** ***must*** **monitor the autopilot system at** ***all*** **times and keep a visual lookout for other marine traffic and other hazards.**

NOTICE

The autopilot system is ***only*** **an aid to navigation. It's accuracy can be affected by:**

- **Equipment Failure or Defects**
- **Environmental Conditions**
- **Improper Handling Or Use**

- Before using the autopilot system, read the autopilot instruction manual(s).
- The autopilot will aid you in maintaining the chosen course of your yacht.

Shift/Throttle Controls

⚠ WARNING!

LOSS OF CONTROL HAZARD!

Improper maintenance of shift/throttle hardware may cause a sudden loss of control!

Read ***all*** of the information about the shift/throttle controls in the shift/throttle controls’ manual, the engine operation manual, and the *Cruiser & Yacht Owner’s Manual Supplement*.

Engine Synchronization (If Equipped)

Follow the instructions in the synchronization section of the shift/throttle controls’ manual.

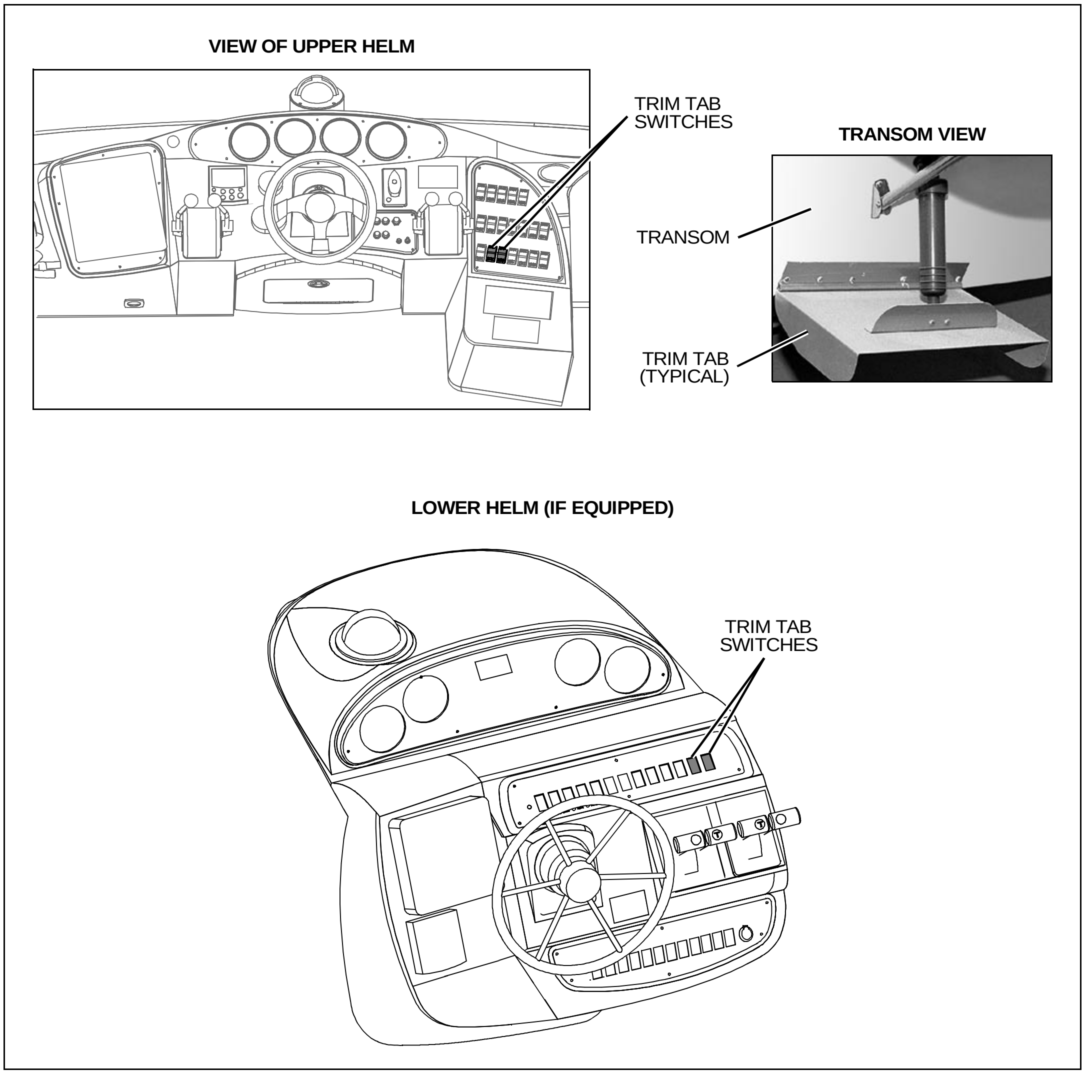
Trim Tabs

⚠ WARNING!

LOSS OF CONTROL HAZARD!

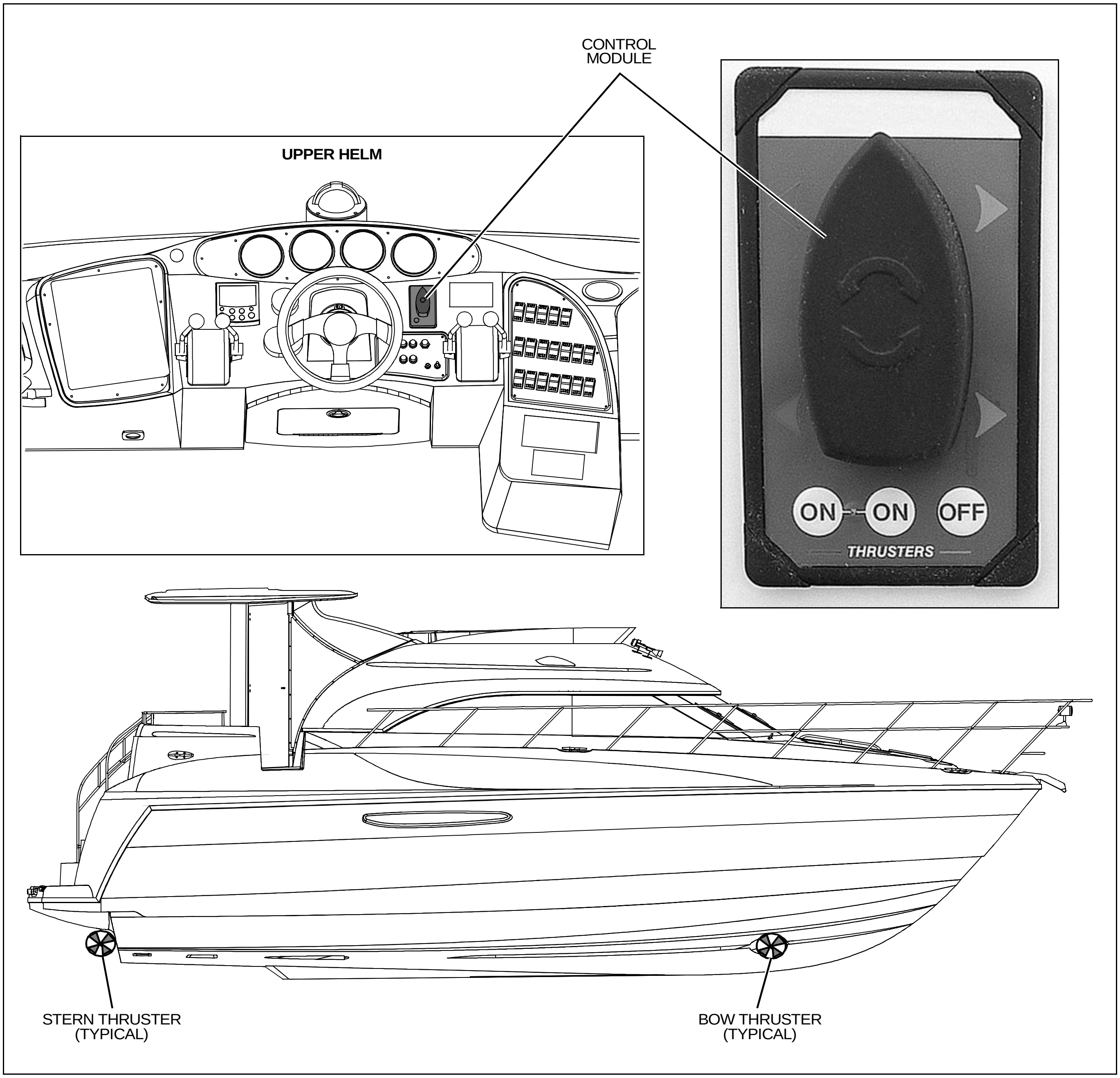
Improper use of trim tabs will cause loss of control!

- **Do *NOT* allow anyone unfamiliar with trim tabs to use them.**
- **Do *NOT* use trim tabs in a following sea as they will cause broaching or other unsafe handling characteristics.**
- **Do *NOT* use trim tabs to compensate for excessive unequal weight distribution.**



- ***Before*** using the trim tabs read the trim tab operation manual.
- The trim tabs can be used to help keep your yacht level at cruising speeds.
- The trim tabs are controlled by two rocker switches at each helm.
- Once cruising speed is reached, the port or starboard trim switch may be used (one at a time) to level the yacht.
- Perform trim tab adjustment with several short touches to the switch rather than one long one.
- After each short touch allow several seconds for the hull to react.
- Periodically (at least once a year) check the fluid level in the trim tab hydraulic fluid reservoir and refill as necessary. For the location of the fluid reservoir see the Component Locations section of Chapter 2.

Dual Thruster System


CONTROL MODULE
UPPER HELM
ON
ON
OFF
THRUSTERS
STERN THRUSTER (TYPICAL)
BOW THRUSTER (TYPICAL)

- This system features bow and stern thrusters.
- During docking, the thrusters can assist you in maneuvering your yacht.
- A thruster control module is located at each helm.
- Read the thruster system's user manual ***before*** using the thruster system for the first time.
- Follow ***all*** user precautions carefully.

Gauges

Cleaning Gauges

⚠ CAUTION!

PRODUCT or PROPERTY DAMAGE HAZARD!

- **Use only mild soap and water to clean the gauge lenses and bezels.**
- **Use of other cleaners, including common window cleaning solutions, may cause the lenses to crack.**
- **Lenses cracked in this manner will *NOT* be covered by our warranty.**

Gauge Fogging

- Moisture may occasionally find its way into the gauges causing lens fogging.
- Turning ***On*** the gauge lights will help dry the lenses.
- Fogging will not harm the gauges.

Radio Transmission Interference

VHF or other radio transmissions may cause brief erratic readings on the tachometers. This will ***not*** damage these gauges or affect their accuracy when the radio is ***not*** transmitting.

Twin Engine Readings

It is normal for tachometers and other gauges to have slightly different readings between engines.

Fuel Gauge

It is normal for the pointers on your fuel gauges to bounce as fuel sloshes back and forth in the fuel tanks.

Chapter 5: Navigation & Communication Equipment

Read the manuals for ***all*** navigation & communication equipment ***before*** using these systems.

Compass

NOTICE

- **Compass accuracy can be affected by many factors.**
- **Have a qualified technician calibrate your compass.**
- **Make sure the technician gives you a deviation card which shows the corrections to apply in navigational calculations.**
- **Keep a copy of the deviation card at each helm.**

Depth Finder

⚠ WARNING!

- **Do *NOT* use the depth finder as a navigational aid to prevent collision, grounding, yacht damage or personal injury.**
- **When the yacht is moving, submerged objects will *NOT* be seen until they are already under the yacht.**
- **Bottom depths may change too quickly to allow time for the yacht to react.**
- **If you suspect shallow water or submerged objects, run the yacht at very slow speeds.**

VHF Radio (If Equipped)

- Your yacht may include a VHF (Very High Frequency) radio.
- The VHF radio can be used to access weather reports, summon assistance or contact other vessels as permitted by the FCC (Federal Communications Commission).
- Contact the FCC for licensing, rules and regulations concerning VHF radio usage.

Radar (If Equipped)

⚠ WARNING!

- **Radar is meant to help the navigator, *NOT* replace him/her.**
- **The operator is responsible for keeping a visual look-out for possible collision situations.**
- **No single navigation aid (including this radar) should be relied upon as the only method for navigating your yacht.**

NOTICE

The Radar system is only an aid to navigation. It's accuracy can be affected by:

- **Equipment Failure or Defects**
- **Environmental Conditions**
- **Improper Handling Or Use**

- The marine radar system gives you a complete and accurate 360° radar view of other vessels, buoys, and landfall surrounding your vessel.
- To turn this system ***On***, the 'Bridge Main' breaker on the battery switch panel ***must*** be switched ***On***. Then power up the radar/GPS Chart Plotter.

Global Positioning System (GPS) (If Equipped)

⚠ WARNING!

- **The GPS system should *NOT* be relied upon as the *only* aid to navigation.**
- **A qualified operator *must* monitor the GPS system at *all* times and keep a look-out for other marine traffic and possible collision situations.**

NOTICE

The GPS system is only an aid to navigation. It's accuracy can be affected by:

- **Equipment Failure or Defects**
- **Environmental Conditions**
- **Improper Handling Or Use**

- GPS receivers provide reliable and accurate position data, anywhere in the world.
- To turn this system on, the 'Bridge Main' breaker ***must*** be switched ***On***, then power up the GPS Chart Plotter.
- If equipped with an autopilot, the autopilot switch on the dash must be turned ***On*** to power up the GPS sensor. See the Autopilot System in Chapter 4.

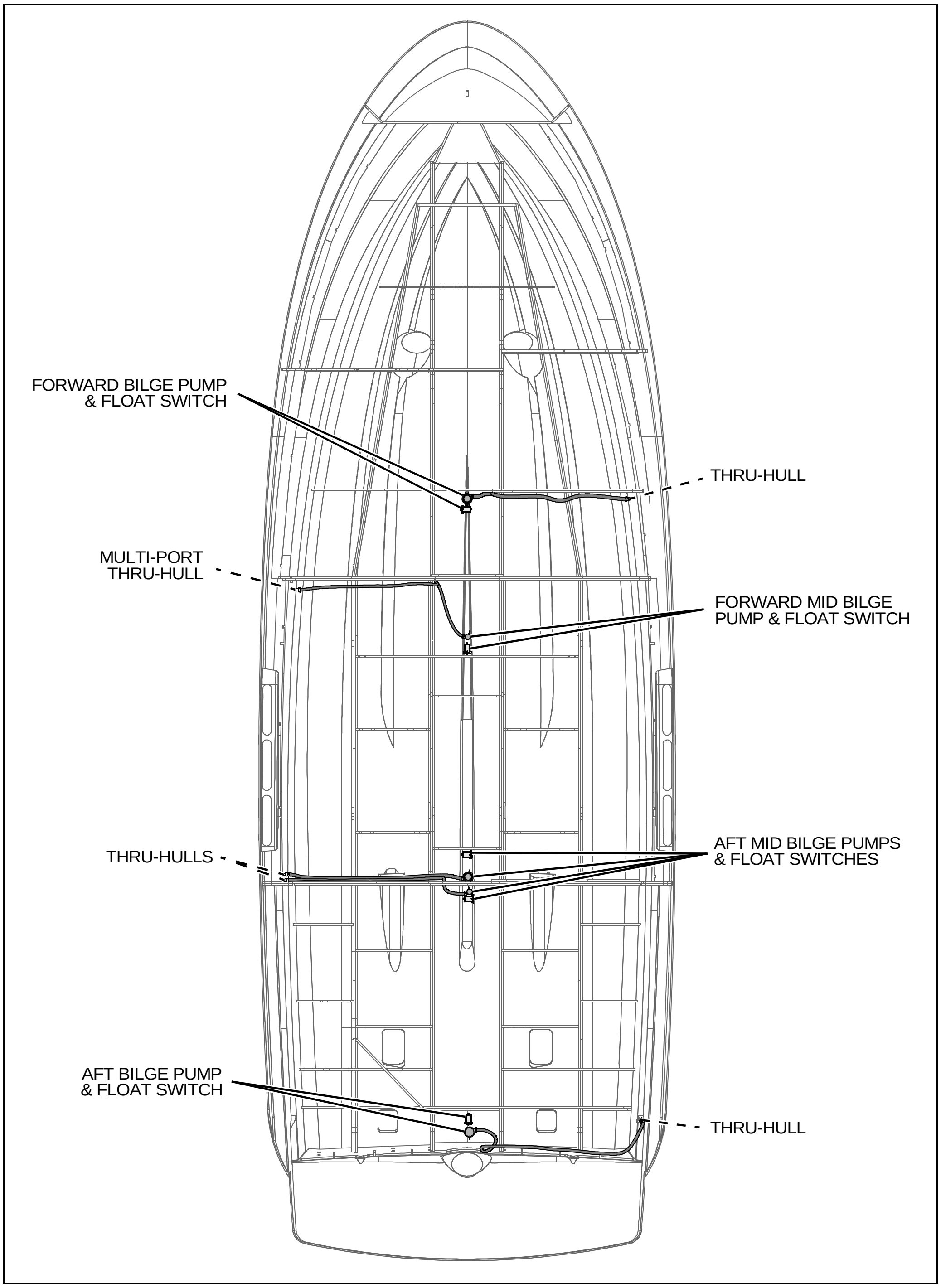
Chapter 6: Plumbing

Bilge Pumps

NOTICE

Discharge of oil, oil waste or fuel into navigable waters is prohibited by law. Violators are subject to legal action by the local authorities.

- Your yacht is equipped with several bilge pumps for pumping water out of the bilge.
- The bilge pumps are controlled by automatic float switches (autofloat switches) and/or switches at the helm.
- The bilge pumps are wired directly to the battery.
- Unless the battery is dead, the pumps should work even when the boat is unattended.


FORWARD BILGE PUMP & FLOAT SWITCH
THRU-HULL
MULTI-PORT THRU-HULL
FORWARD MID BILGE PUMP & FLOAT SWITCH
THRU-HULLS
AFT MID BILGE PUMPS & FLOAT SWITCHES
AFT BILGE PUMP & FLOAT SWITCH
THRU-HULL

Bilge Pump Testing

- The bilge pumps are vital to the safety of your yacht.
- Test the bilge pumps often to make sure they are working properly.

To test each bilge pump:

1. One at a time, turn ***On*** the bilge pump switches at the helm.
2. Make sure that water in the bilge is pumped overboard.

If there is water in the bilge and a pump motor is running, but *not* pumping, inspect the discharge hose for a kink or collapsed area.

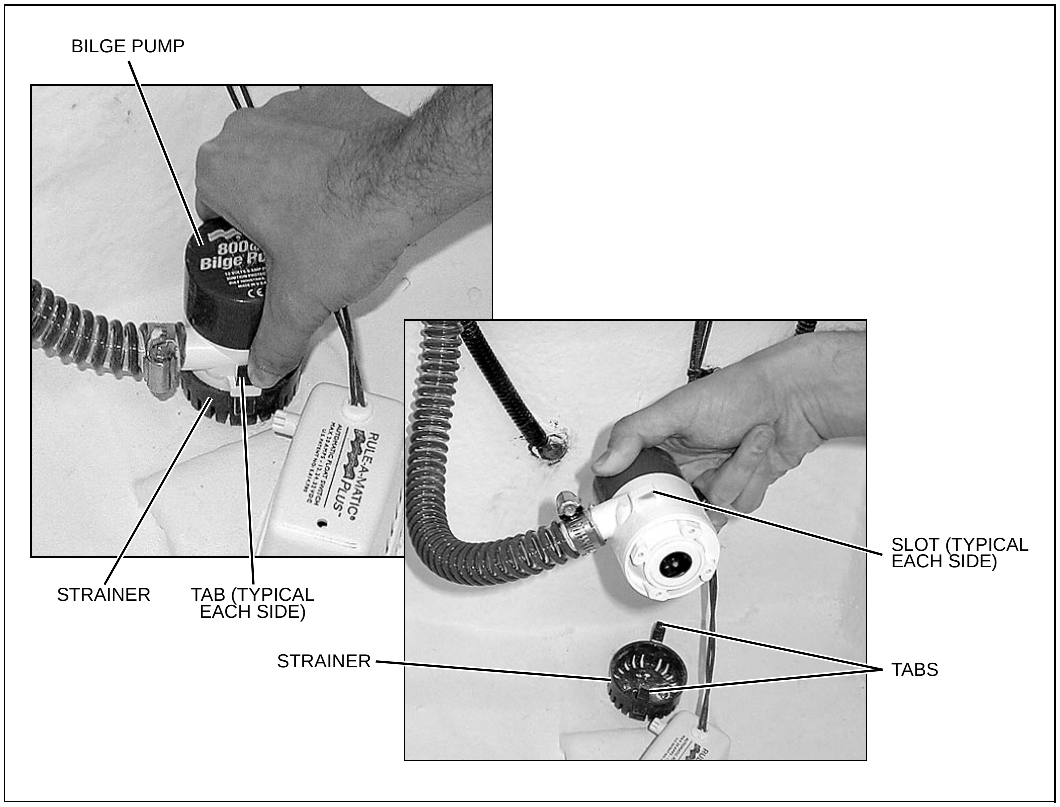
If the discharge hose looks okay, check the bilge pump and strainer for clogging debris.

Checking the bilge pump and strainer for clogging debris:

1. With your thumb and forefinger squeeze the holding tabs on each side of the strainer.
2. Lift out the bilge pump.
3. Check the pump and strainer and clear any debris.

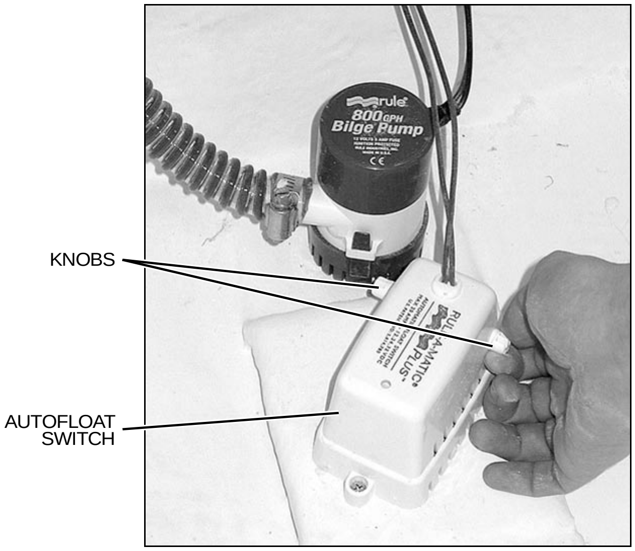
Reinstalling the bilge pump:

1. Align the tabs on the strainer with the slots on the pump.
2. Press down firmly until the tabs click into place.
3. Make sure the bilge pump is locked into place.



Autofloat Switches

- Each automatic bilge pump features an autofloat switch.
- The autofloat switch turns the pump ***On*** when water rises above a preset level.
- Each autofloat switch is normally located next to the bilge pump it controls.
- The autofloat switches should be tested often.



Testing the autofloat switches

1. Twist either of the white plastic knobs one quarter turn to lift the float and turn ***On*** the bilge pump.
2. If the pump does ***not*** turn ***On***, check the inline fuse.
3. If the fuse is good but the switch doesn't work, it may indicate a bad switch or possibly a low battery.

Seawater Systems

Seacocks

⚠ CAUTION

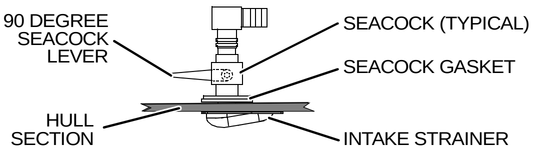
SYSTEM DAMAGE HAZARD!

- ***Before* using a seawater intake system, make sure that the system's seacock is in the *Open* position *before* the system is started and keep the seacock *Open* until the system is shut *Off*.**
- ***Close* the seacocks whenever the systems will *NOT* be used for long periods of time.**

A seacock is a thru-hull valve, that may be opened to let in water or discharge liquids such as waste from the holding tank. Seacocks are typically used on your yacht in the following seawater intake or liquid discharge systems:

- Engines
- Generator (if equipped)
- Air conditioning system (if equipped)
- Marine head system

SEAWATER INTAKE VALVE (SEACOCK) COMPONENTS (TYPICAL)



Before using any of these systems, make sure that the system's seacock is ***Open*** and remains ***Open*** until the system is shut ***Off***.

Seawater Strainers

- Seawater strainers are used in water intake systems to filter incoming seawater.
- A seawater strainer is located near each system's seacock.
- Check the strainers for leaks and/or debris ***every time*** *you use your yacht*.
- If debris is found, clean the seawater strainer.

Cleaning a seawater strainer:

⚠ CAUTION

FLOODING HAZARD!

- **The seacock that sends seawater to the strainer must be *CLOSED* before disassembling the seawater strainer to prevent the yacht from taking on water through the seawater strainer assembly.**
- **Keep the seacock *CLOSED* until the seawater strainer is completely reassembled.**

SYSTEM DAMAGE HAZARD!

- **After reassembling the seawater strainer, make sure that the seacock valve is *OPEN before* using the component/system.**

1. Make sure the component/system (generator, air conditioning system, etc.) that the strainer is connected to is turned ***Off***.
2. ***Close*** the seacock that sends seawater to the strainer you are about to clean. The seacock must remain ***Closed*** until the strainer is completely reassembled.
3. Take apart the seawater strainer.
4. Remove the debris.
5. Flush the strainer with water.
6. Reassemble the seawater strainer.
7. ***Open*** the seacock and check for leaks around the strainer. If no leaks are found, you may use the component or system.

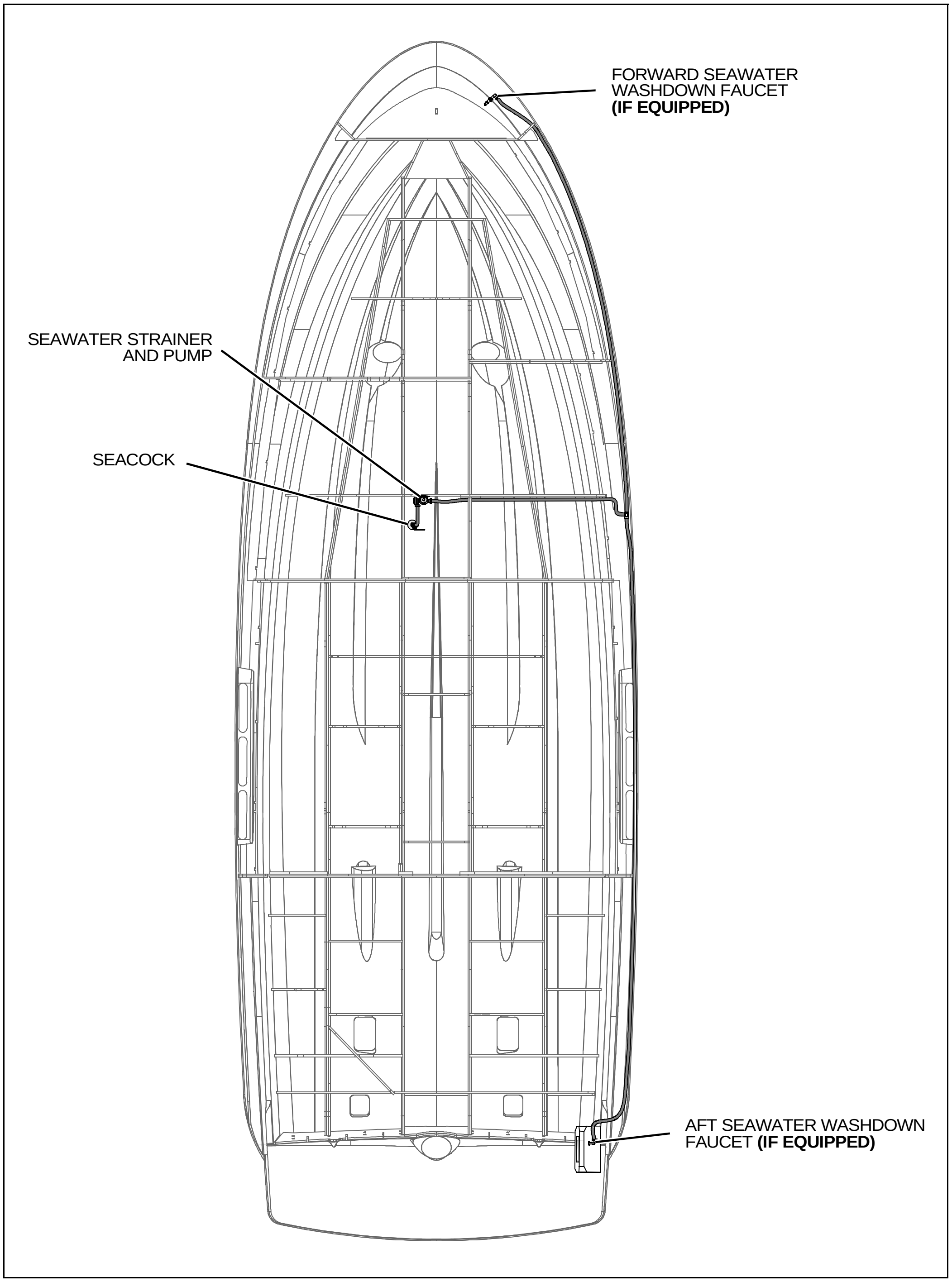
Seawater Washdown System (If Equipped)

⚠ CAUTION

FLOODING & SWAMPING HAZARD!

***NEVER* leave your yacht unattended while using the "seawater washdown" feature. Any leak or break in the system may allow large amounts of water to accumulate in the bilge that could cause swamping of the batteries and engines or even sinking of the yacht.**

- ***Always*** make sure the seawater intake seacock is ***Open before*** turning the seawater washdown system ***On***.
- This system can be pressurized by turning ***On*** the seawater washdown pump.
- See the *Locations* section of this *Owner's Manual* for the location of the seawater washdown pump circuit breaker.

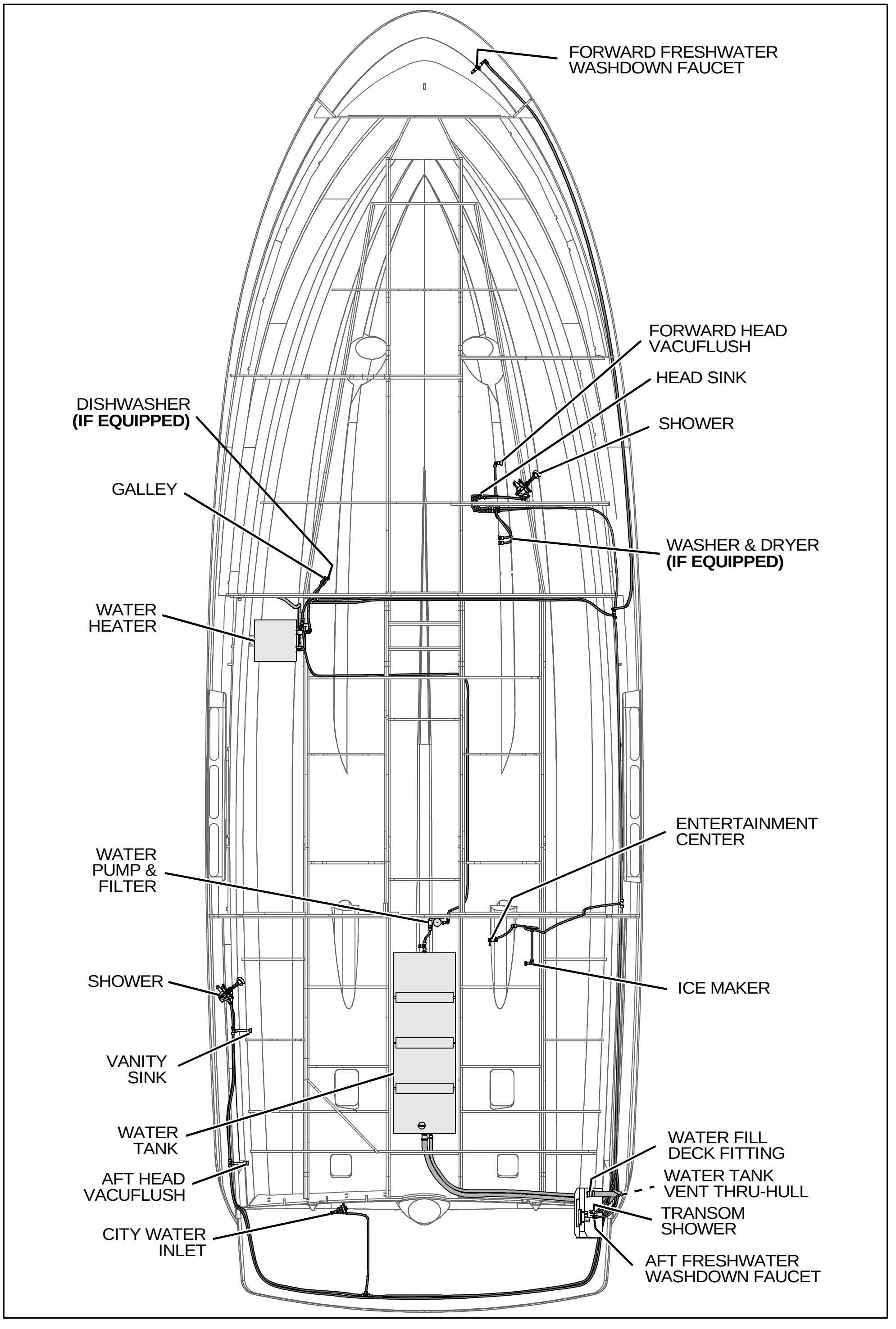

FORWARD SEAWATER WASHDOWN FAUCET **(IF EQUIPPED)**
SEAWATER STRAINER AND PUMP
SEACOCK
AFT SEAWATER WASHDOWN FAUCET **(IF EQUIPPED)**

Freshwater System

⚠ WARNING!

- ***Only* use safe drinking (potable) water in your yacht's freshwater system.**
- ***Only* use an FDA approved, white 'drinking water safe' hose to fill the freshwater tank or to connect to city water.**
- ***NEVER* use a common garden hose for drinking water.**

- Read the *Freshwater System* section in the *Cruiser & Yacht Owner's Manual Supplement*.
- Your yacht is equipped with a pressure type (demand) freshwater (potable) system.
- This system can be pressurized by turning ***On*** the freshwater pump switch or by connecting to city water.
- See the *Locations* section of this *Owner's Manual* for the locations of the freshwater pump switch and the city water inlet.
- Since the freshwater pump requires DC power, the battery switch ***must*** also be turned ***On*** for the pump to work.
- ***NEVER*** leave the yacht unattended while using the 'city water' feature.
- Turn ***Off*** the freshwater pump switch when the yacht is not in use or when the freshwater tank is empty.
- Inspect and clean the freshwater filter often (located on the freshwater pump).
- If your yacht is to be left unattended for a long period of time, pump the freshwater tank dry to prevent stored water from becoming stagnant and distasteful.
- If the freshwater system needs to be disinfected, ask your dealer about the treatments available.


FORWARD FRESHWATER WASHDOWN FAUCET
FORWARD HEAD VACUFLUSH
HEAD SINK
SHOWER
DISHWASHER (IF EQUIPPED)
GALLEY
WASHER & DRYER (IF EQUIPPED)
WATER HEATER
ENTERTAINMENT CENTER
WATER PUMP & FILTER
SHOWER
ICE MAKER
VANITY SINK
WATER TANK
WATER FILL DECK FITTING
WATER TANK VENT THRU-HULL
AFT HEAD VACUFLUSH
TRANSOM SHOWER
CITY WATER INLET
AFT FRESHWATER WASHDOWN FAUCET

Freshwater System Winterization

⚠ CAUTION

WATER SYSTEM DAMAGE HAZARD!

***NEVER* blow compressed air through the water system when *all* of the faucets are *Closed*.**

1. Turn ***On*** the freshwater pump switch.
2. ***Open all*** of the faucets and showers and let the freshwater system drain completely.
3. Turn ***Off*** the freshwater pump switch.

All remaining water ***must*** be removed from the water lines. There are two ways to remove the remaining water from the lines:

- Compressed Air
- Gravity Draining

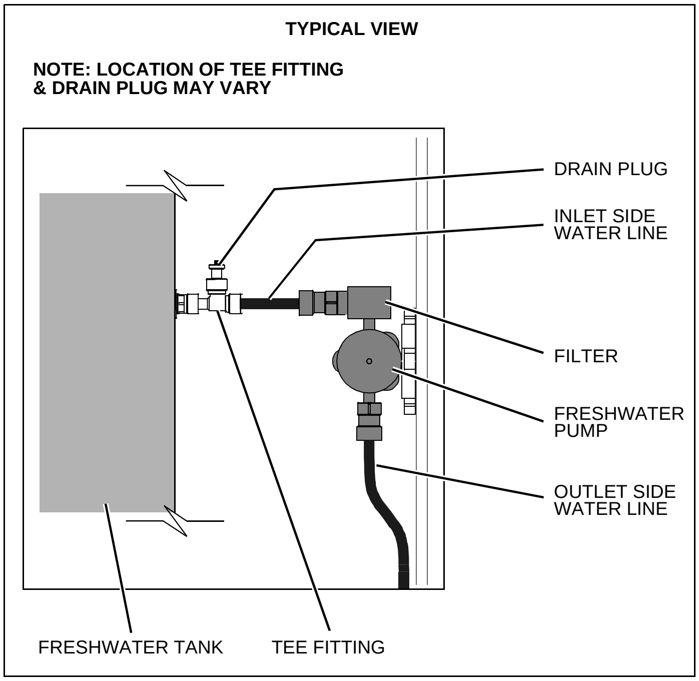
Compressed Air

You ***must*** have an air compressor with an air hose and an air nozzle.

1. Remove the water line from the outlet side of the freshwater pump (opposite side from filter).
2. ***Open*** the faucet that is furthest away from the freshwater pump.
3. Place the air nozzle against the end of the just removed water line and blow air through the system.
4. When the water stops coming out of the ***Open*** faucet, stop the air and ***Close*** the faucet.
5. One at a time, repeat this process on ***all*** of the faucets and showers.

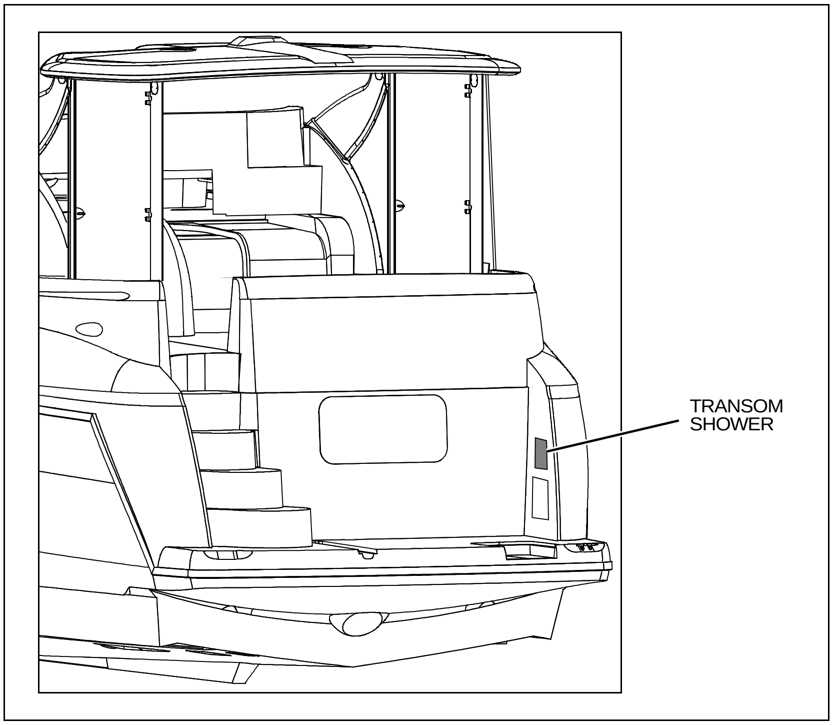
Gravity Draining

1. ***Open all*** faucets and showers.
2. Remove the drain plug from the tee fitting on the freshwater tank.
3. When the water has stopped draining from the freshwater tank, replace the drain plug.


TYPICAL VIEW
NOTE: LOCATION OF TEE FITTING & DRAIN PLUG MAY VARY
DRAIN PLUG
INLET SIDE WATER LINE
FILTER
FRESHWATER PUMP
OUTLET SIDE WATER LINE
FRESHWATER TANK
TEE FITTING

Transom Shower (If Equipped)

- Read the manufacturer's instructions ***before*** using the transom shower for the first time.
- To use the transom shower, the yacht ***must*** be connected to a dockside freshwater supply, or the freshwater pump switch ***must*** be turned ***On***.



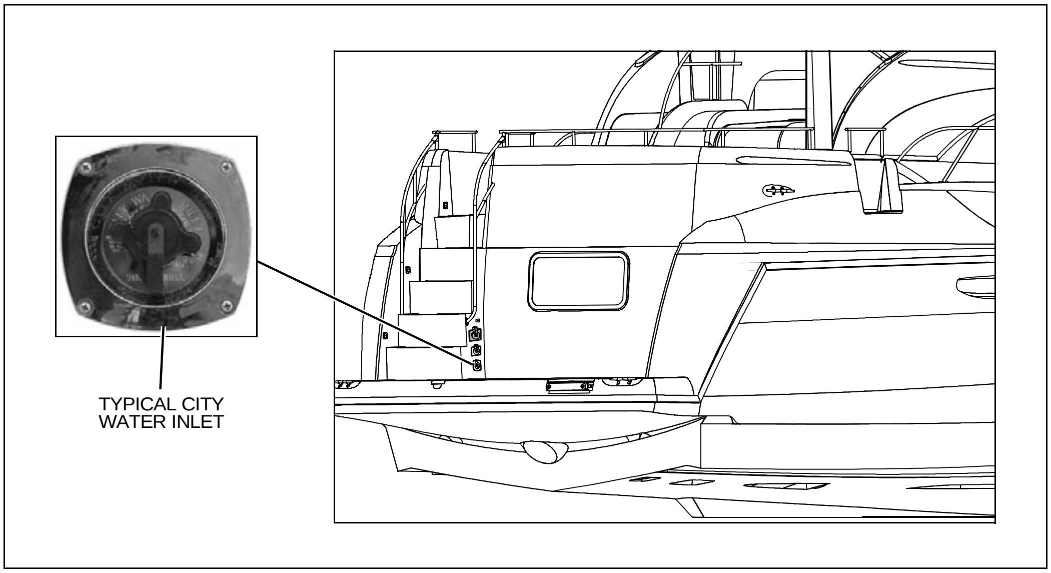
City Water Inlet (If Equipped)

⚠ CAUTION

FLOODING & SWAMPING HAZARD!

- ***NEVER*** **leave the yacht unattended while using the 'city water' feature.**
- **Any leak or break in the system may allow large amounts of water to accumulate in the bilge that could cause swamping of the batteries and engines or even sinking of the yacht.**

- Read the *City Water Hookup* portion of the *Freshwater System* section in the *Cruiser & Yacht Owner's Manual Supplement.*
- When the yacht is connected to a dockside freshwater supply, the freshwater system is pressurized.
- The freshwater pump's DC breaker ***must*** be ***Off***.



Water Heater

WARNING!

SCALDING HAZARD!

Water heated by the water heater can be hot enough to scald the skin.

CAUTION!

WATER HEATER DAMAGE HAZARD!

- **Do *NOT* turn *On* the water heater electrical circuit on the AC panel until the water heater tank is *COMPLETELY* filled with water.**
- **Even momentary operation in a dry tank *will* damage the heating elements.**
- **Warranty replacements will *NOT* be made on elements damaged in this manner.**
- **The tank is full if water flows from the tap when the hot water is turned *On* in the galley.**
- **The water heater should be drained and the power turned *Off* when the possibility of freezing exists.**

NOTICE

If your yacht is connected to shore power or generator power, but the water heater is *NOT* working:

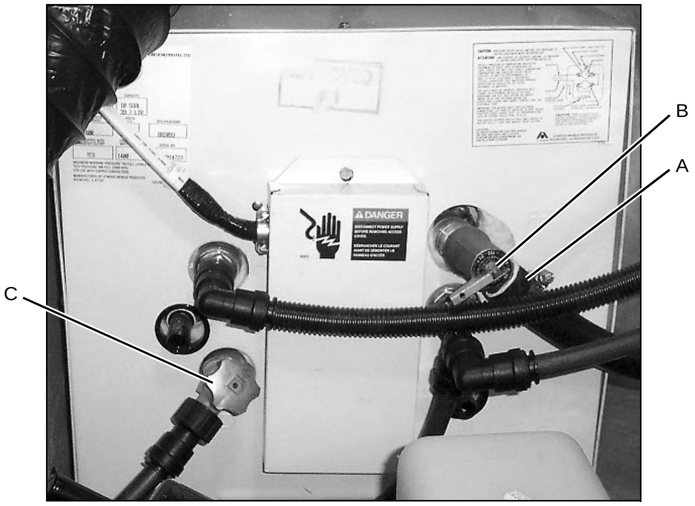
- **Make sure the water heater circuit breaker on the AC panel is switched *On*.**
- **If the circuit breaker on the AC panel is *On*, but the water heater is still *NOT* working: Ask your dealer how to check the 'push to reset' circuit breaker located on the water heater.**

- Read the water heater instruction manual and heed the warnings above.
- The water heater is connected to the 110-volt, AC power system.
- Turn ***On*** the water heater breaker on the AC panel to heat the water.

Winterizing the Water Heater

1. Turn ***Off*** the water heater breaker.
2. Disconnect the hose (A) attached to the pressure relief valve (B).
3. If there is any water in this hose, drain it into the bilge or into a bucket.
4. ***Open*** the pressure relief valve (B).
5. ***Open*** the drain valve (C).

- Leave the pressure relief and drain valves ***Open*** until you fit out the yacht after storage.



Drain Systems

Deck Drains

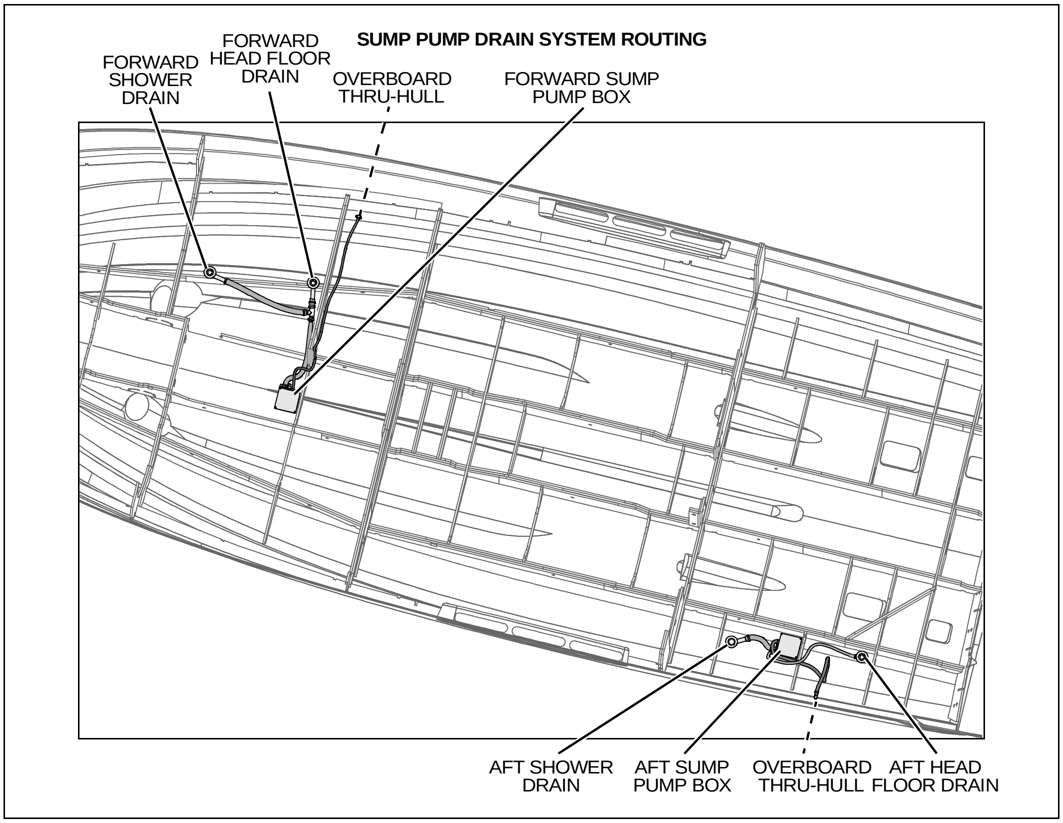
- Water on the deck is drained overboard through the deck drains.
- Keep the deck drains free of debris.

Gray Water Drains

The galley sink is above the waterline and is gravity drained overboard

Sump Pump Drain System

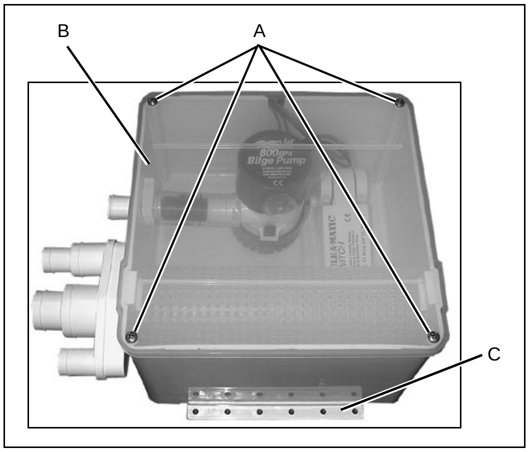
- The showers and head sinks drain into sump pump boxes.
- Each sump pump box has a float switch.
- When water rises to a preset level the float switch turns ***On*** a sump pump, to pump the water overboard.


SUMP PUMP DRAIN SYSTEM ROUTING
FORWARD SHOWER DRAIN
FORWARD HEAD FLOOR DRAIN
OVERBOARD THRU-HULL
FORWARD SUMP PUMP BOX
AFT SHOWER DRAIN
AFT SUMP PUMP BOX
OVERBOARD THRU-HULL
AFT HEAD FLOOR DRAIN

Sump Box Cleaning

Periodically clean each sump box, filter, and pump as follows:

1. Remove the cover screws (A) and the cover (B).
2. Remove any debris from the box and the filter.
3. Clean the sump pump as outlined in the Bilge Pump section of this manual.



Sump System Winterization

Drain the sump pump systems in the winter months when ***not*** in use.

1. Disconnect and drain ***all*** lines to the unit.
2. Remove the screws from the mounting feet (C).
3. Turn the box upside down to remove the rest of the water.
4. Reinstall the screws in the mounting feet and reconnect the system.

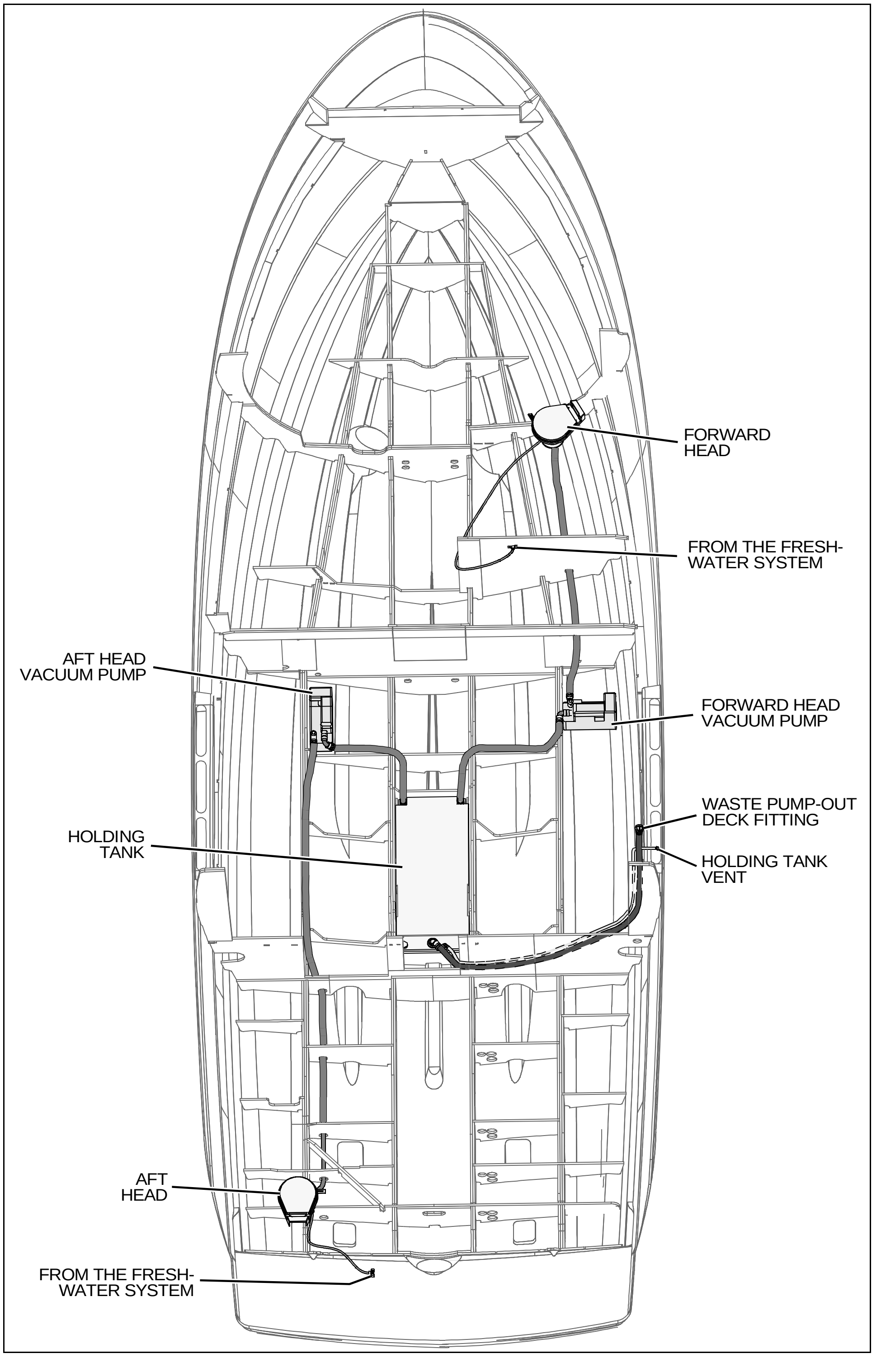
Marine Head & Holding Tank

NOTICE

Check with local authorities for regulations regarding the legal use of marine head systems.

VacuFlush Head System

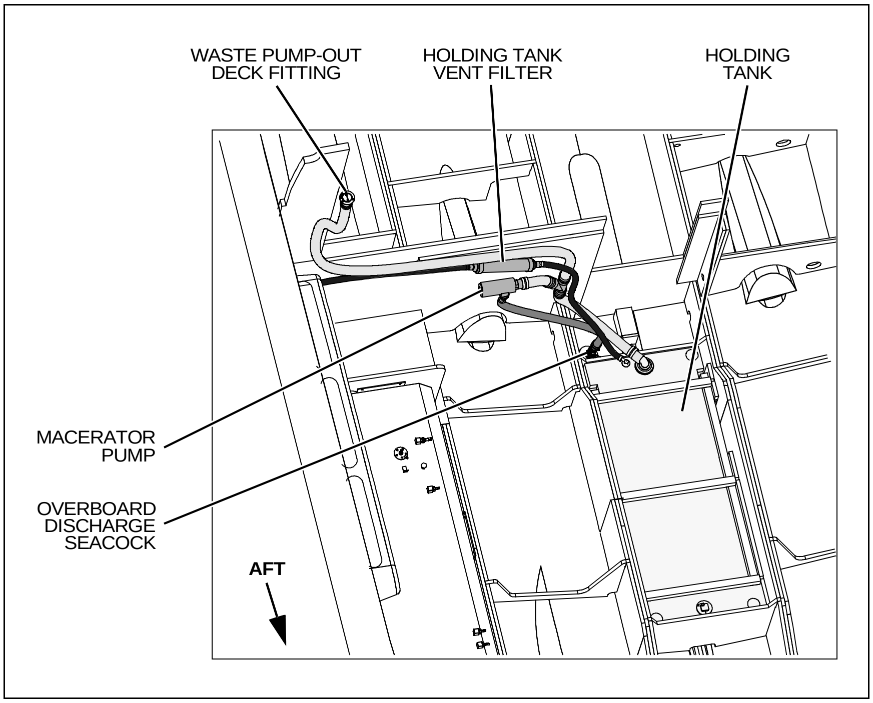
- Read the VacuFlush operation and maintenance manual.
- The VacuFlush head system uses freshwater from the freshwater tank and a vacuum pump to flush waste from the toilet into the holding tank.
- The holding tank is plumbed to a waste fitting on the deck for dockside pump-out.
- To check the content level of the holding tank, look at the monitoring gauge. For the location of the holding tank monitoring gauge, see the *Locations* section of this *Owner's Manual*.
- Empty the holding tank at every opportunity.
- For winterizing instructions, refer to the VacuFlush head, operation and maintenance manual.


FORWARD HEAD
FROM THE FRESH-WATER SYSTEM
AFT HEAD VACUUM PUMP
FORWARD HEAD VACUUM PUMP
WASTE PUMP-OUT DECK FITTING
HOLDING TANK
HOLDING TANK VENT
AFT HEAD
FROM THE FRESH-WATER SYSTEM

Macerator (If Equipped)

To use the macerator to pump waste directly overboard (where regulations permit):

1. ***Open*** the overboard discharge seacock.
2. Press both macerator switches at the same time to run the pump.
3. Stop running the macerator as soon as the waste holding tank is empty.
4. ***Close*** the overboard discharge seacock when you are done pumping.


WASTE PUMP-OUT DECK FITTING
HOLDING TANK VENT FILTER
HOLDING TANK
MACERATOR PUMP
OVERBOARD DISCHARGE SEACOCK
AFT

Chapter 7: Deck Equipment

Cleats

⚠ WARNING!

PERSONAL INJURY and /or PRODUCT or PROPERTY DAMAGE HAZARD!

***NEVER* lift the yacht using the cleats.**

Carefully read the section on towing in the *Cruiser & Yacht Owner’s Manual Supplement* before towing anything behind your yacht or having your yacht towed by another vessel.

Windlass

⚠ DANGER!

PERSONAL SAFETY HAZARD!

***ALWAYS* secure the anchor and other loose objects *before* getting underway. The anchor and other items that are *NOT* properly secured can come loose when the yacht is moving and cause personal injury or death.**

⚠ CAUTION

PRODUCT DAMAGE HAZARD!

Do *NOT* pull the yacht to the anchor using the windlass or continue to run the windlass if it has stalled or is overloaded.

- Read and follow the manufacturer’s instruction manual ***before*** using the anchor windlass for the first time.
- The windlass can be controlled from a switch at the helm or from the deck foot switches.
- Make sure that the windlass breaker is turned ***On before*** using the anchor windlass.
- To raise the anchor, use engine power (***not*** the windlass) to move the yacht to, and directly above, the anchor.
- Dislodge the anchor from the bottom by pulling it straight up with the windlass.
- Make sure the anchor is secured ***before*** getting underway.

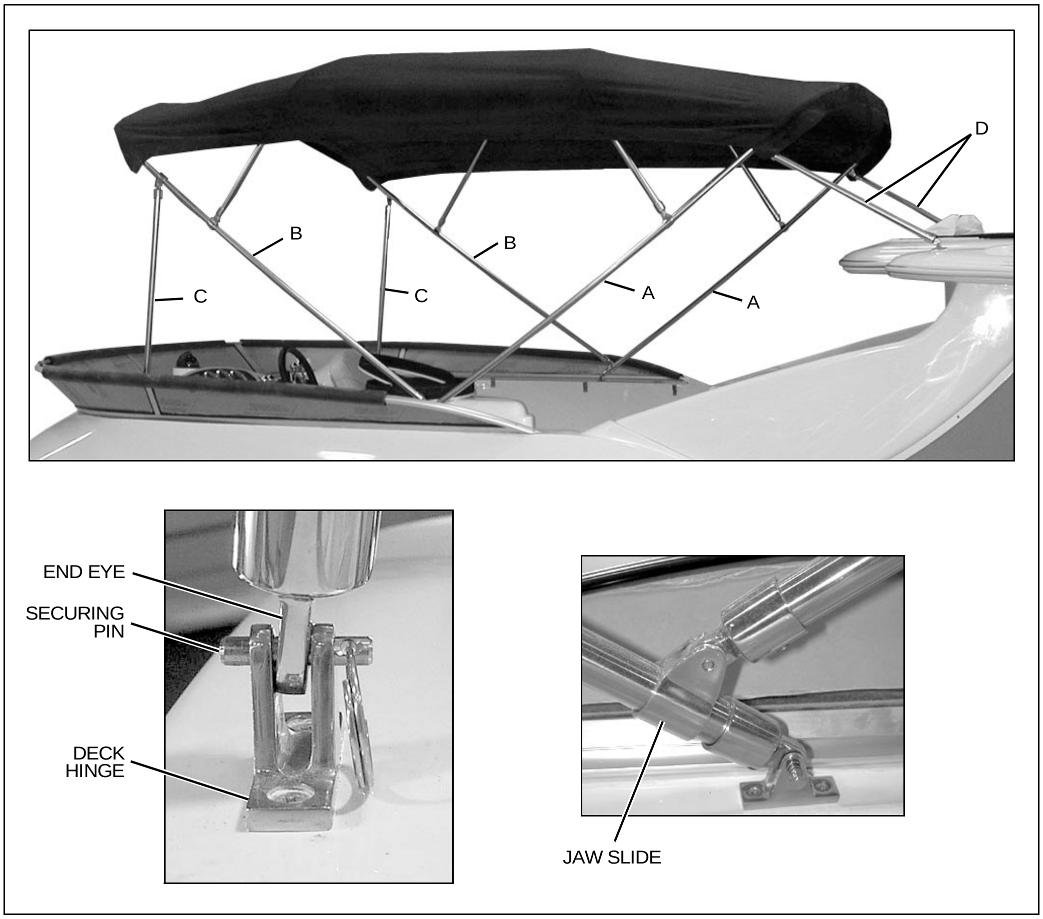
Canvas

⚠ CAUTION

Take down and securely stow the canvas top, side curtains and back cover before transporting your yacht by road.

1. Insert the end eyes of the main bow (A) into the deck hinges near the ends of the windscreen and secure with the pins.
2. Pull the secondary bows (B) forward and insert the end eyes of the forward braces (C) into the forward deck hinges and secure with the pins.
3. Insert the end eyes of the aft braces (D) into the deck hinges on the hard top.

- The jaw slides should ***not*** need to be adjusted.
- However, if you think the jaw slides need to be adjusted, obtain the measurements from your selling dealer.



Canvas Care (see also, 'Clear Vinyl Care' on next page)

- After each use, especially in saltwater, rinse the canvas with cold freshwater.
- Before stowing, let the canvas air dry completely.
- The canvas can be rolled or folded for stowage.

Cleaning Canvas

⚠ **CAUTION**

NEVER **use detergents when washing the canvas. Detergents can destroy the water repellency, and mildew/UV resistant finish of your canvas.**

Regularly clean the canvas to prevent dirt, pollen, and etc. from embedding in the fabric. Generally, it is easiest to wash the canvas while it is installed on the yacht.

1. Use a soft-bristled brush to remove all dust and loose dirt.
2. Hose down the canvas with freshwater.
3. Gently wash the canvas with a solution of lukewarm water (no more than 100 F) and non-detergent soap, such as Lux or Ivory Flakes.
4. Rinse thoroughly to remove the soap.
5. Before stowing, let the canvas air dry completely.

Stubborn Stains

⚠ **CAUTION**

- **Soaking in bleach solutions may remove the waterproof finish of the fabric and may also decrease the life of the polyester thread used in the canvas.**
- **If necessary, a water repellent treatment should be re-applied to your canvas. Ask your dealer about the treatments available for your yacht's canvas.**

Some stubborn stains may resist normal washing and you can try the following methods. However, these methods may remove the waterproof finish of the fabric and may also decrease the life of the polyester thread used in the canvas. Reapply a water repellent treatment as necessary.

Method 1

1. Add 1/8 cup (2 oz.) of **non-chlorine** bleach to one gallon of water and mix thoroughly.
2. Thoroughly wet the canvas and then gently scrub the stained area with the weak bleach solution.
3. Rinse with cold water to remove all of the solution.

Method 2

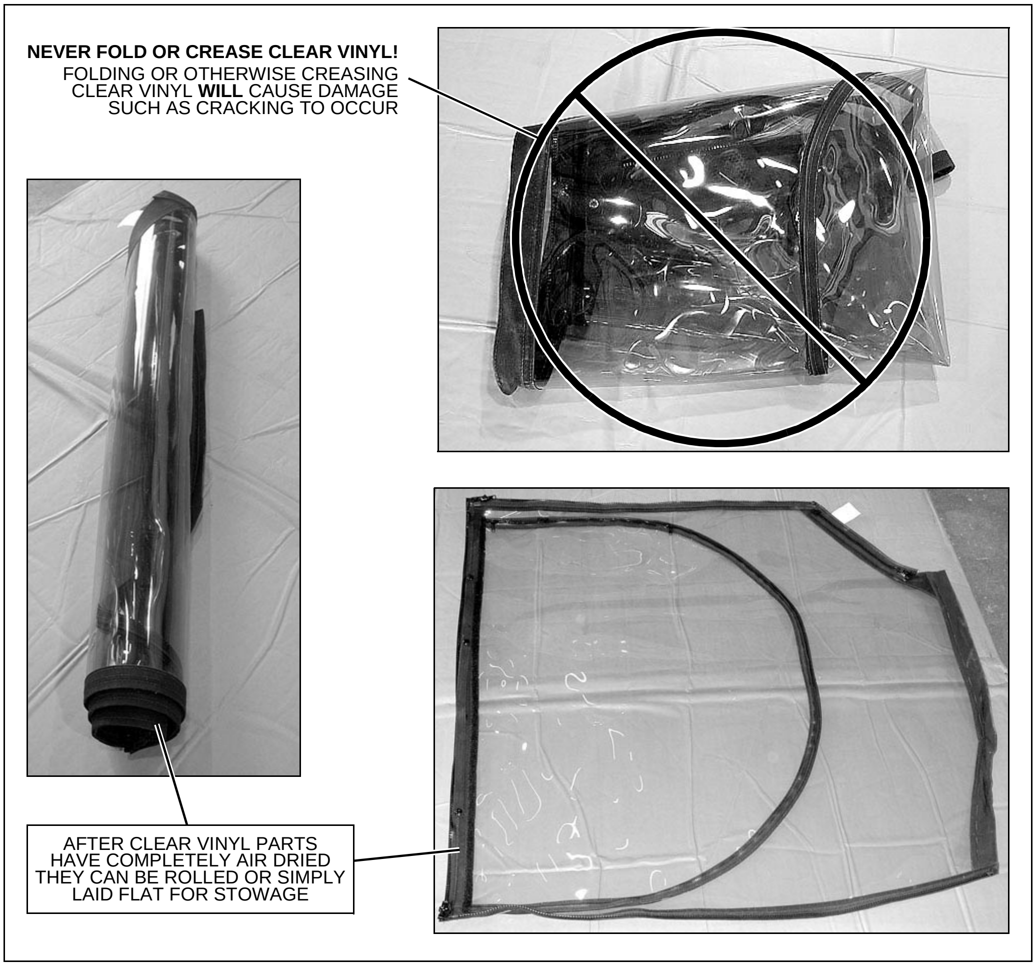
1. Add 1/2 cup (4 oz.) of **non-chlorine** bleach and 1/2 cup (4 oz.) Ivory Flakes to one gallon of water and mix thoroughly.
2. Soak the canvas in this solution for about 20 minutes.
3. Rinse with cold water to remove all of the solution.

Clear Vinyl Care

⚠ CAUTION

- ***NEVER*** **store the clear vinyl pieces wet, as this will cause a milky film to develop.**
- ***NEVER*** **fold or crease the clear vinyl pieces as cracking will occur.**
- **Clear vinyl is *NOT* intended for use when the yacht is in storage or being moored.**
- **Clear vinyl does *NOT* hold up well against ultraviolet rays.**
- **Under direct sunlight conditions, do *NOT* let the clear vinyl touch the framework. The framework radiates heat and can burn the clear vinyl.**

- After each use, especially in saltwater, rinse the clear vinyl with cold freshwater.
- ***Before*** stowing, the clear vinyl must be completely dry. Air drying is best, but you can also carefully dry the vinyl with a chamois or soft cotton cloth.
- The clear vinyl can be rolled or laid out flat for stowage.
- ***NEVER*** fold or crease the clear vinyl parts as cracking will occur.


NEVER FOLD OR CREASE CLEAR VINYL!
FOLDING OR OTHERWISE CREASING CLEAR VINYL **WILL** CAUSE DAMAGE SUCH AS CRACKING TO OCCUR
AFTER CLEAR VINYL PARTS HAVE COMPLETELY AIR DRIED THEY CAN BE ROLLED OR SIMPLY LAID FLAT FOR STOWAGE

Cleaning Clear Vinyl

Regularly clean the clear vinyl to prevent dirt, pollen, and etc. from marring the surface. Generally, it is easiest to clean the clear vinyl while it is installed on the yacht.

1. Hose down the clear vinyl with freshwater.
2. Using a soft cotton cloth **(paper towels are abrasive and should never be used on clear vinyl)**, gently wash the clear vinyl with soap and water.
3. Rinse thoroughly to remove the soap.
4. ***Before*** stowing, the clear vinyl must be completely dry. Air drying is best, but you can also carefully dry the vinyl with a chamois or soft cotton cloth.

Ask your dealer about products available to keep the clear vinyl polished and looking new.

Chapter 8: Appliances & Entertainment Systems

NOTICE

Always keep an approved ABC-type fire extinguisher in galley area.

All appliances and entertainment systems installed on your yacht come with their own manuals. These manuals contain detailed instructions and important safeguards. Read these manuals *before* using your yacht's appliances and entertainment systems.

- Make sure the AC breaker is turned ***On*** for the appliance you wish to use.

Refrigerator

Your yacht features a 110-volt AC/12-volt DC refrigerator. The refrigerator runs on 12-volt DC power unless 110-volt AC power is being supplied by shore power or generator power *and* the AC refrigerator breaker is ***On***.

Electric Stove

⚠ WARNING!

BURN/SCALDING and/or FIRE HAZARD!

- **Read the stove's instruction manual *before* using.**
- ***Always* keep an approved ABC-type fire extinguisher in galley area.**
- **Do *NOT* use the stove while underway.**
- **Any non-cooking devices on or near your stove during use are potential fire hazards!**
- **Do *NOT* touch burners, grates or nearby surfaces as they may be hot even when they are dark in color. Areas near burners and grates may become hot enough to cause burns.**
- **During and after use, do *NOT* touch or let clothing or other flammable material come in contact with heated units or areas near the units (burner tops, main frame sides and back, sea rails and pot holders) until they have had sufficient time to cool.**

Range/Oven (If Equipped)

⚠ WARNING!

BURN HAZARD!

- **Do *NOT* touch stove burners, grates or areas near the stove units as they may be hot even when they are dark in color. Areas near burners and grates may become hot enough to cause burns.**
- **During and after use, do *NOT* touch or let clothing or other flammable material come in contact with heated units or areas near the units (burner tops, main frame sides and back, sea rails and pot holders) until they have had sufficient time to cool.**

Coffeemaker

WARNING!

BURN/SCALDING!

- **Read the coffeemaker's instruction manual *before* using.**
- **Do *NOT* use the coffeemaker while underway.**
- **Water heated by the coffeemaker can be hot enough to scald the skin.**

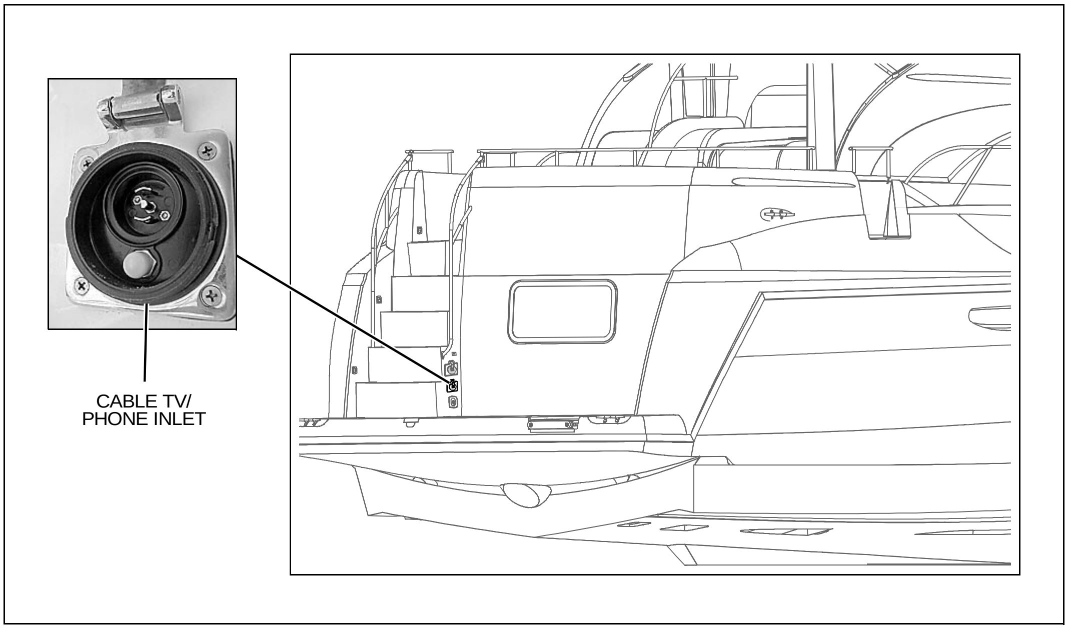
Audio & Visual Equipment

NOTICE

AM radio reception may be impaired anytime the engine is running.

Dockside Television & Telephone Inlet

Plug a dockside source into the TV/telephone inlet if you want to watch cable TV or use a telephone.



Chapter 9: Lights

Care and Maintenance

All of the lights installed on your yacht are of top quality, but you should be aware that failure may periodically occur for a variety of reasons:

1. There may be a blown fuse - *replace the fuse*.
2. The bulb may be burned out - *carry spare bulbs for replacement*.
3. A wire may be damaged or may have come loose - *repair as required*.
4. The bulb base may be corroded - *clean the base and coat it with non-conductive electrical lubricant*.

Interior & Exterior Lights

⚠ CAUTION

- **Be conservative in the use of battery power.**
- **Prolonged use of cabin interior lights (overnight) will result in a drained battery.**

- The lights are powered by the yacht’s 12-volt DC system.
- The battery switch must be in the ***On*** position for the lights to work.

Navigation Lights

⚠ CAUTION!

Avoid the storage of gear where it would block navigation lights from view.

Read the navigation light section of the *Cruiser & Yacht Owner’s Manual Supplement*.

Spotlight

Read the spotlight’s operating instructions ***before*** using the spotlight.

Chapter 10: Heating & Air Conditioning

Air Conditioning System (If Equipped)

⚠ DANGER!

CO
DANGER
CARBON MONOXIDE

CARBON MONOXIDE POISONING HAZARD!

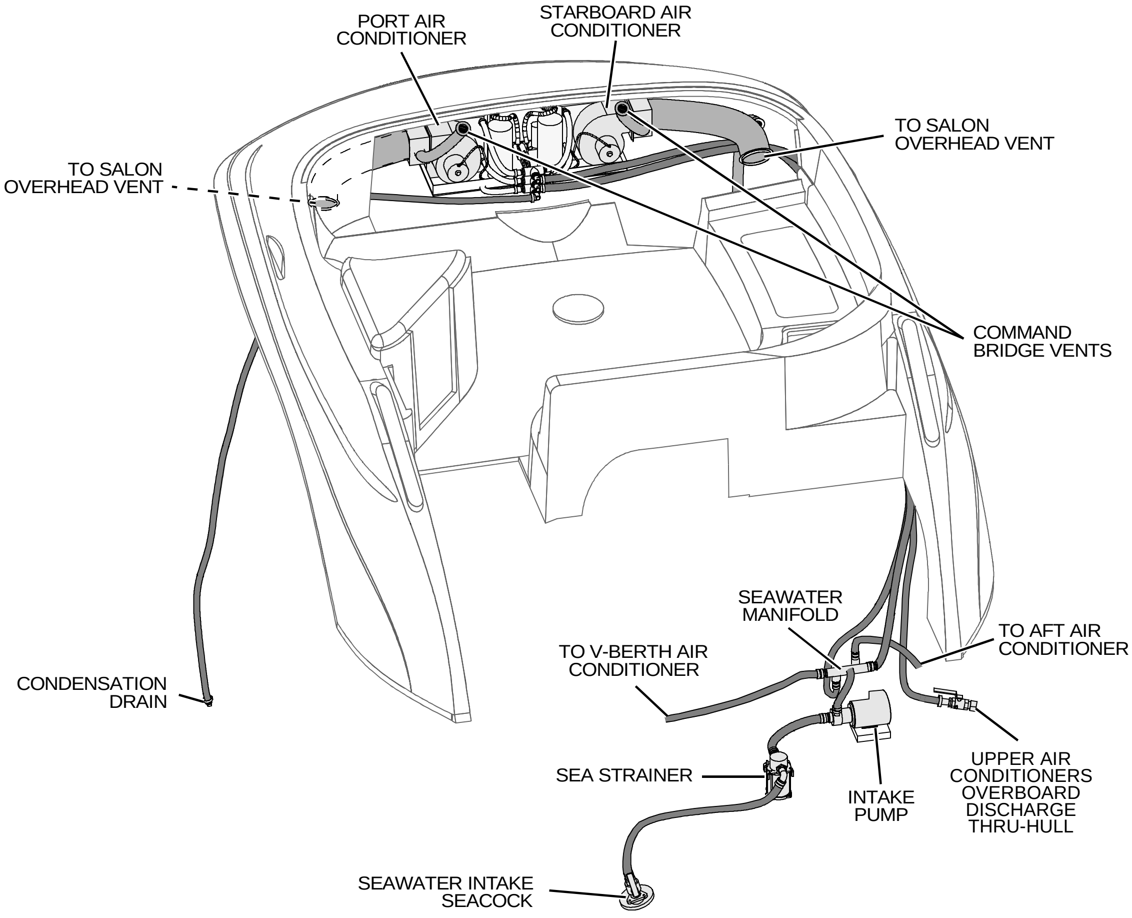
Dangerous carbon monoxide gas (CO) can be brought into the yacht through the air conditioning system.

⚠ CAUTION

SYSTEM DAMAGE HAZARD!

The air conditioning system's seawater intake and discharge seacocks *must* be *Opened before* turning *On* the air conditioner and *must* stay *Open* during use.

UPPER AIR CONDITIONING SYSTEM

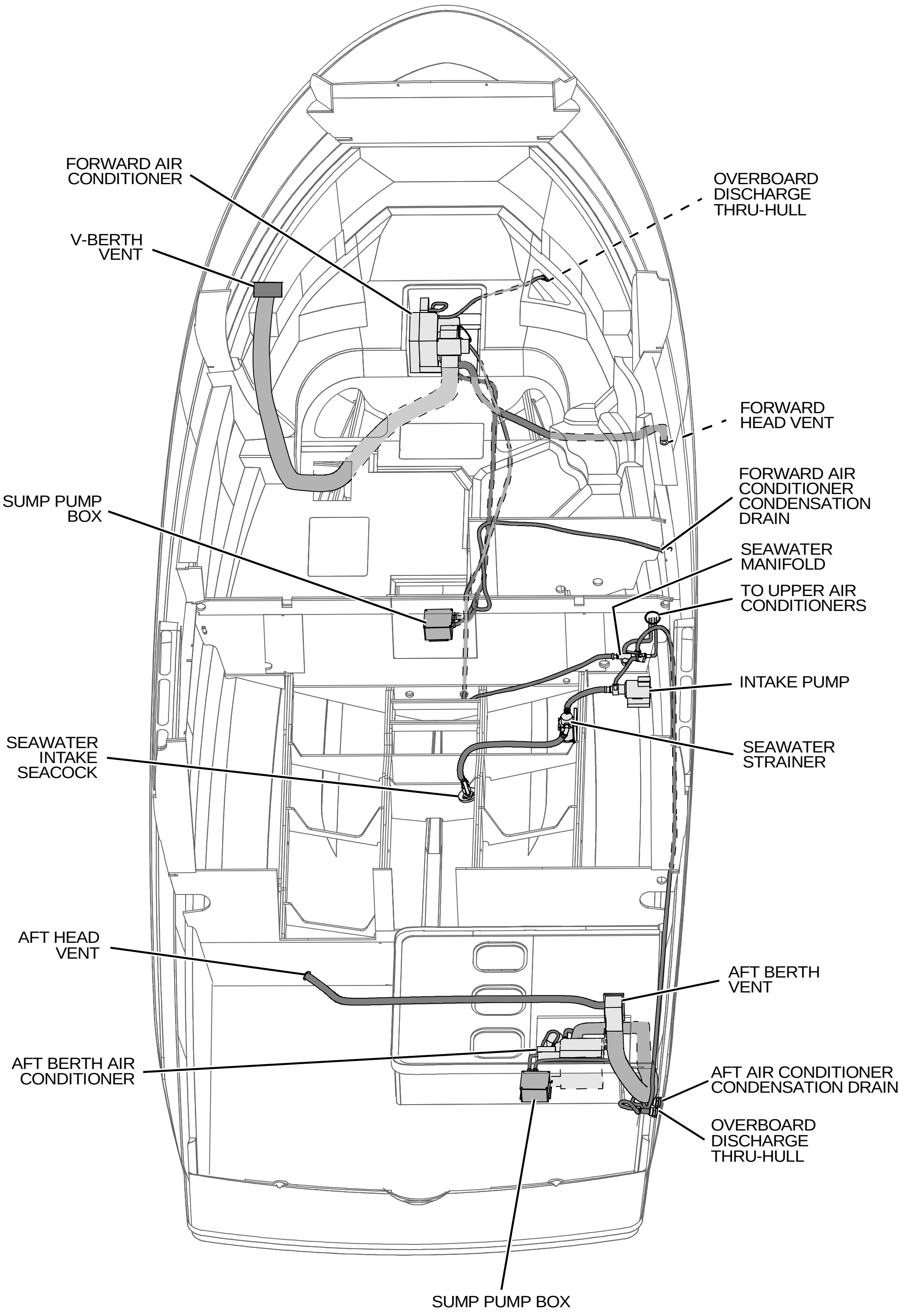


PORT AIR CONDITIONER
STARBOARD AIR CONDITIONER
TO SALON OVERHEAD VENT
TO SALON OVERHEAD VENT
COMMAND BRIDGE VENTS
SEAWATER MANIFOLD
TO AFT AIR CONDITIONER
TO V-BERTH AIR CONDITIONER
CONDENSATION DRAIN
SEA STRAINER
INTAKE PUMP
UPPER AIR CONDITIONERS OVERBOARD DISCHARGE THRU-HULL
SEAWATER INTAKE SEACOCK

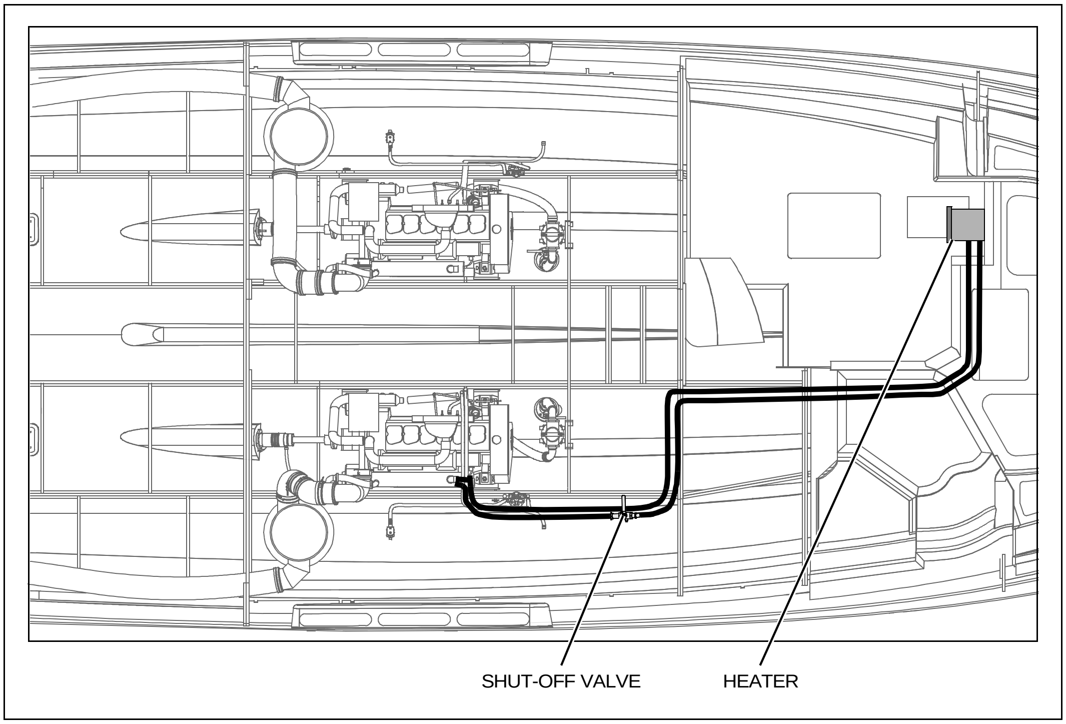
Read the air conditioner manual ***before*** using the air conditioning system.

- ***Before*** using the air conditioning system, make sure the breakers on the AC main distribution panel are turned ***On*** and that the system's seawater intake and discharge seacocks are ***Open***.
- The seacock ***must*** remain ***Open*** while the air conditioner is in use.
- Check the seawater intake strainer for debris ***before*** each use of the air conditioning system.
- If the strainer needs to be cleaned out; follow the directions given in the *Seawater Systems* section of this manual.

FORWARD & AFT AIR CONDITIONING SYSTEMS


FORWARD AIR CONDITIONER
V-BERTH VENT
OVERBOARD DISCHARGE THRU-HULL
FORWARD HEAD VENT
FORWARD AIR CONDITIONER CONDENSATION DRAIN
SUMP PUMP BOX
SEAWATER MANIFOLD
TO UPPER AIR CONDITIONERS
INTAKE PUMP
SEAWATER INTAKE SEACOCK
SEAWATER STRAINER
AFT HEAD VENT
AFT BERTH VENT
AFT BERTH AIR CONDITIONER
AFT AIR CONDITIONER CONDENSATION DRAIN
OVERBOARD DISCHARGE THRU-HULL
SUMP PUMP BOX

Heat Exchanger Cabin Heat (If Equipped)



The heat exchanger cabin heater runs directly off the starboard engine. ***Before*** using the heat exchanger cabin heater:

1. Read the manufacturer's instruction manual.
2. Make sure the circulation loop shut-off valve is ***Open***.
3. Turn ***On*** the circuit breaker for the heater fan.

- If the heat exchanger circulation loop is ***Open*** and the starboard engine is running, the heater will radiate heat even if the heater fan is turned ***Off***.
- ***All*** circulation to the heater can be shut ***Off*** by ***Closing*** the circulation loop shut-off valve.

Electric Heaters (If Equipped)

Your yacht may feature electric cabin heaters. Operating instructions for this system can be found in the manufacturer's instruction manual.

- ***Before*** using the electric heaters, make sure the breakers on the AC panel are turned ***On***.

Chapter 11: Electrical System

DANGER!

EXTREME FIRE, SHOCK & EXPLOSION HAZARD!

- **To minimize the risks of fire and explosion, *NEVER* install knife switches or other arcing devices in the fuel compartments.**
- ***NEVER* substitute automotive parts for marine parts. Electrical, ignition and fuel system parts were designed and manufactured to comply with rules and regulations that minimize risks of fire and explosion.**
- **Do *NOT* modify the electrical systems or relevant drawings.**
- **Allow only qualified marine electricians to install batteries and/or perform electrical system maintenance.**
- **Make sure that all battery switches are turned *OFF* before performing any work in the engine spaces.**

WARNING!

1 2 3 4 min

FIRE & EXPLOSION HAZARD!

- **Fuel fumes are heavier than air and will collect in the bilge areas where they can be accidently ignited.**
- **Visually and by smell (sniff test), check the engine, generator, and fuel compartments for fumes or accumulation of fuel.**
- ***ALWAYS* run the bilge blowers for at least four minutes prior to engine or generator starting, electrical system maintenance, or the activation of electrical devices.**
- **Minimize the danger of fire and explosion by not exposing the batteries to open flame or sparks. *NEVER* smoke anywhere near the batteries.**

CAUTION

SHOCK & ELECTRICAL SYSTEM DAMAGE HAZARD!

When the engines are running, *NEVER* turn *Off* the main battery switches or disconnect the battery cables. Doing either could cause damage to your yacht's engines and/or electrical system components.

NOTICE

Electrical connections are prone to corrosion. To reduce corrosion caused electrical problems, keep all electrical connections clean and apply a spray-on protectant that is designed to protect connections from corrosion.

12-Volt DC System

Batteries

The batteries supply electricity for lights, accessories, and engine starting.

The Electrical section of Chapter 8, in the *Cruiser & Yacht Owner’s Manual Supplement*, provides battery, care and maintenance instructions.

Battery Switches

⚠ CAUTION

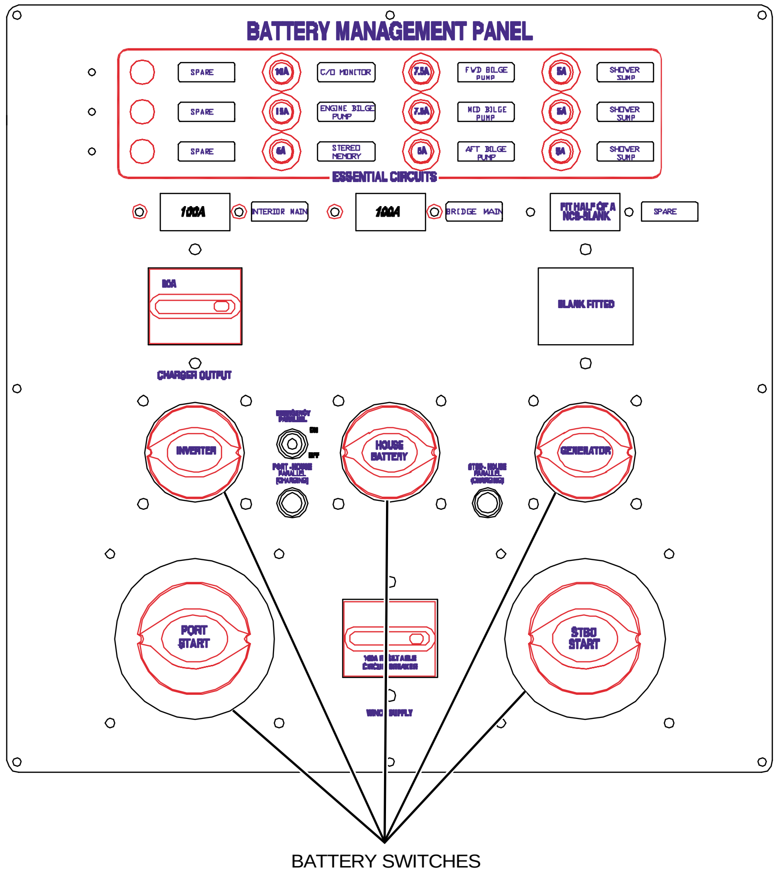
SHOCK & ELECTRICAL SYSTEM DAMAGE HAZARD!

When the engines are running, *NEVER* turn *Off* the main battery switches or disconnect the battery cables. Doing either could cause damage to your yacht’s engines and/or electrical system components.

NOTICE

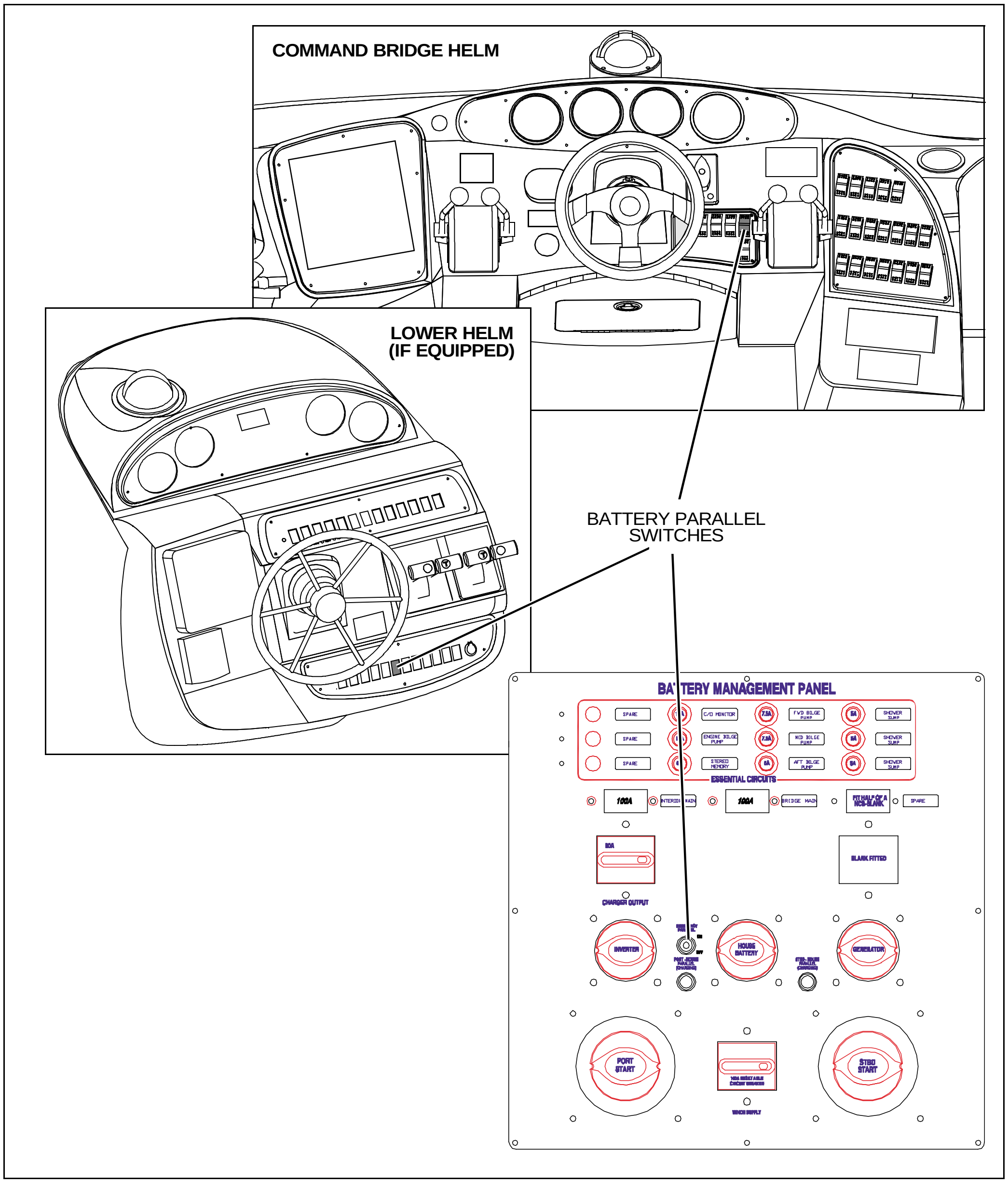
Make sure your selling dealer fully explains how to use the battery switches.

- A separate battery switch is provided for each battery (or battery bank).
- The batteries supply electricity for lights, 12-volt accessories, and engine and generator starting.
- "Stand-by loads", such as the automatic bilge pumps, and the stereo memory, are ***not*** affected by the battery switches. Stand-by loads bypass the battery switch and are wired directly to the battery.


BATTERY MANAGEMENT PANEL
SPARE
SPARE
SPARE
10A
15A
6A
C/O MONITOR
ENGINE BILGE PUMP
STEREO MEMORY
7.5A
7.5A
5A
FWD BILGE PUMP
MID BILGE PUMP
AFT BILGE PUMP
5A
5A
5A
SHOWER SUMP
SHOWER SUMP
SHOWER SUMP
ESSENTIAL CIRCUITS
100A
INTERIOR MAIN
100A
BRIDGE MAIN
FIT HALF OF A NCS-BLANK
SPARE
BLANK FITTED
CHARGER OUTPUT
INVERTER
ON
OFF
PORT-HOUSE PARALLEL (CHARGING)
HOUSE BATTERY
STBD-HOUSE PARALLEL (CHARGING)
GENERATOR
PORT START
STBD START
WINCH SUPPLY
BATTERY SWITCHES

Emergency Battery Parallel Switch

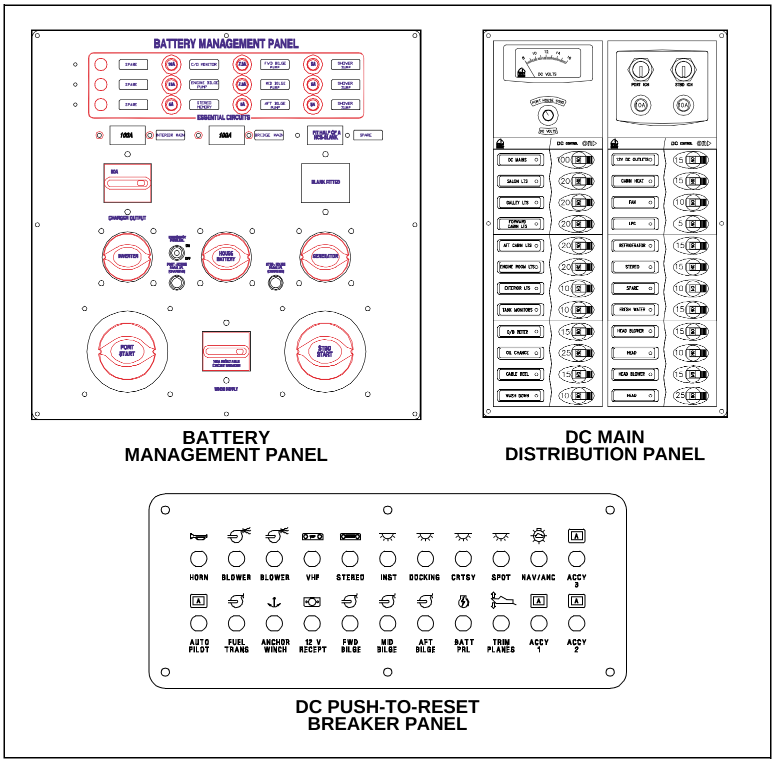
- If an engine will not start because of a dead battery, the battery parallel switch allows you to use the other batteries for engine starting.
- A battery parallel switch is provided on the battery management panel and at each helm (see illustrations on right).
- Emergency parallel switch instructions are provided on the VSR Charging Module Information Sheet.


COMMAND BRIDGE HELM
LOWER HELM (IF EQUIPPED)
BATTERY PARALLEL SWITCHES
BATTERY MANAGEMENT PANEL
SPARE
SPARE
SPARE
C/O MONITOR
ENGINE BILGE PUMP
STEREO MEMORY
7.5A
7.5A
5A
FWD BILGE PUMP
MID BILGE PUMP
AFT BILGE PUMP
5A
5A
5A
SHOWER SUMP
SHOWER SUMP
SHOWER SUMP
ESSENTIAL CIRCUITS
100A
INTERIOR MAIN
100A
BRIDGE MAIN
FIT HALF OF A NCS-BLANK
SPARE
80A
CHARGER OUTPUT
BLANK FITTED
ON
OFF
PORT - HOUSE PARALLEL (CHARGING)
INVERTER
HOUSE BATTERY
STBD - HOUSE PARALLEL (CHARGING)
GENERATOR
PORT START
STBD START
WINCH SUPPLY

Fuses and Circuit Breakers

The fuses and circuit breakers for the engines and main accessory power are on the following panels (the locations of these panels are provided in Chapter 2 of this *Owner's Manual*):

- DC main distribution panel.
- DC push-to-reset breaker panel.
- Battery management panel.
- Some equipment may have secondary fuse protection at the unit, behind the battery management panel, or at the batteries.


BATTERY MANAGEMENT PANEL
ESSENTIAL CIRCUITS
INVERTER
HOUSE BATTERY
GENERATOR
PORT START
STBD START
HORN
BLOWER
BLOWER
VHF
STEREO
INST
DOCKING
CRTSY
SPOT
NAV/ANC
ACCY 3
AUTO PILOT
FUEL TRANS
ANCHOR WINCH
12 V RECEPT
FWD BILGE
MID BILGE
AFT BILGE
BATT PRL
TRIM PLANES
ACCY 1
ACCY 2

BATTERY MANAGEMENT PANEL

DC MAIN DISTRIBUTION PANEL

DC PUSH-TO-RESET BREAKER PANEL

12-Volt Accessory Outlet(s)

⚠ CAUTION

Do *NOT* use the 12-volt accessory outlet with a cigarette or cigar lighter. High temperatures may melt the outlet.

- Your yacht is equipped with one or more 12-volt accessory outlets.
- The outlet(s) can be used with any 12-volt device which draws 15 amps or less.
- Each 12-volt accessory outlet is protected by a 15 amp fuse on the DC breaker panel.

Alternators

The engine alternators will keep the batteries properly charged when running at cruising speeds.

Battery Charger or Inverter/Charger (If Equipped)

⚠ CAUTION!

ENGINE & ELECTRICAL SYSTEM DAMAGE HAZARD!

NEVER **run the yacht’s engine and the battery charger at the same time.**

⚠ CAUTION

- **The battery charging systems (alternator and battery charger or inverter/battery charger) installed on your yacht are designed to charge conventional lead-acid batteries.**
- **Before installing gel-cell or other new technology batteries, consult with the battery manufacturer about charging system requirements.**

- Read the VSR Charging Module Information Sheet.
- ***Before*** using the battery charger or inverter/charger, read ***all*** instructions and warnings: (1) on the battery charger or inverter/charger, (2) on the battery, and (3) in the battery charger manual.
- The battery charger will charge the boat’s battery whenever the boat is plugged into 110V/60Hz shore power *and* the "BATTERY CHARGER" AC circuit breaker is ***On***.
- The battery switches can be in any position during charging.
- For the inverter/charger (if equipped) to charge the battery, the inverter ***must*** be turned ***On*** and the inverter battery switch must be turned ***On***.
- You may use DC powered electrical systems, such as the lights and stereo when the battery charger or inverter/charger is charging, but there will be a corresponding drop in charger performance.

110-Volt AC System

CAUTION

WATER HEATER DAMAGE HAZARD!

- **Do *NOT* turn *On* the water heater breaker on the AC panel until the water heater tank is *completely* filled with water.**
- **The tank is full if water flows from the tap when the hot water is turned *On* in the galley.**
- **Even momentary operation in a dry tank** will **damage the heating elements.**
- **Warranty replacements will *NOT* be made on elements damaged in this manner.**

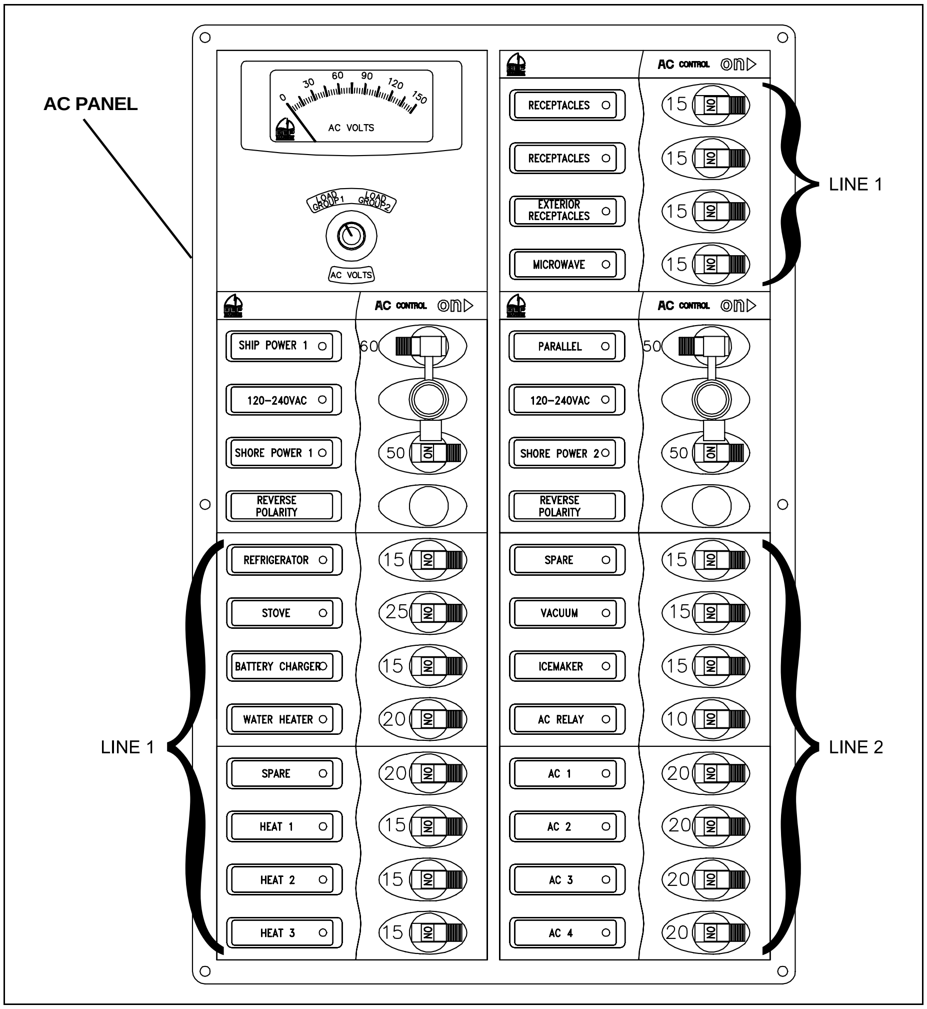
NOTICE

- **Whether using shore power or generator power, the simultaneous use of several AC components can result in an overloaded circuit.**
- **It may be necessary to turn *Off* one or more accessories in order to use another accessory.**

NOTICE

This system is designed so that shore power and generator power can *NOT* supply power at the same time.

- To gain a basic understanding of your yacht’s 110-Volt AC system, read the information provided in the handbook, "A Boater’s Guide To AC Electrical Systems." If a copy of this handbook was not included in your owner’s packet, call 360-403-2198 and one will be mailed to you.
- The AC system can be energized by shore power or generator power (if equipped).
- The master circuit breakers, located on the AC panel, provide power source selections to AC powered accessories.
- Individual breakers ***must*** be turned ***On*** to supply power to the accessories you wish to use.
- The AC panel may contain inactive circuit breakers for accessories that are not available for this model yacht.


AC PANEL
0 30 60 90 120 150
AC VOLTS
LOAD GROUP 1
LOAD GROUP 2
AC VOLTS
AC CONTROL on
RECEPTACLES 15
RECEPTACLES 15
EXTERIOR RECEPTACLES 15
MICROWAVE 15
LINE 1
SHIP POWER 1 60
120-240VAC
SHORE POWER 1 50
REVERSE POLARITY
PARALLEL 50
120-240VAC
SHORE POWER 2 50
REVERSE POLARITY
REFRIGERATOR 15
STOVE 25
BATTERY CHARGER 15
WATER HEATER 20
SPARE 20
HEAT 1 15
HEAT 2 15
HEAT 3 15
LINE 1
SPARE 15
VACUUM 15
ICEMAKER 15
AC RELAY 10
AC 1 20
AC 2 20
AC 3 20
AC 4 20
LINE 2
ON

Shore Power

⚠ DANGER!

FIRE, EXPLOSION & SHOCK HAZARD!

- ***NEVER*** **alter shore power connectors.**
- ***ONLY*** **use compatible connectors.**
- ***Before*** **plugging in (or unplugging) the shore power cord to your yacht, make sure all breakers and switches on the AC master panel are turned** ***OFF*****.**
- **To prevent shock or injury from an accidental dropping of the 'hot' cord into the water;** ***ALWAYS*** **plug the shore power cord into the yacht inlet first; then into the dockside outlet. When unplugging from shore power,** ***ALWAYS*** **unplug the shore power cord from the dockside outlet first.**
- ***NEVER*** **leave the shore power cord** ***only*** **plugged into the dockside outlet.**
- **Only use shore power cords approved for marine use.** ***NEVER*** **use ordinary indoor or outdoor extension cords.**

⚠ WARNING!

SHOCK & ELECTRICAL SYSTEM DAMAGE HAZARD!

- **Monitor the polarity indicator lights** ***EVERY TIME*** **you connect to shore power.**
- **If a reversed polarity light turns on when you are connecting to shore power, do** ***NOT*** **turn on the main breaker switches.**
- **Instead,** ***IMMEDIATELY*** **unplug the shore power cord (*****ALWAYS*** **from the dockside outlet first) and alert marina management.**

⚠ WARNING!

SHOCK & ELECTRICAL SYSTEM DAMAGE HAZARD!

- **Before each use, check the shore power cord(s) for defects or damage.**
- ***NEVER*** **use damaged or faulty cords since the danger of fire and electrical shock exists.**
- **Do** ***NOT*** **pinch shore power cords in doors or hatches, or coil the shore power cord too tightly since these situations can generate enough heat to result in a fire.**
- **If a shore power cord is dropped into the water,** ***THOROUGHLY*** **dry the blades and contact slots before using.**

⚠ CAUTION

ELECTRICAL SYSTEM DAMAGE HAZARD!

- ***NEVER*** **connect to dockside power outside of North America unless you have purchased the international electrical conversion option.**
- **Using several AC components at the same time can result in an overloaded circuit. You may have to turn off one or more appliances in order to use another appliance.**
- **Use double insulated or three-wire protected electrical appliances whenever possible.**

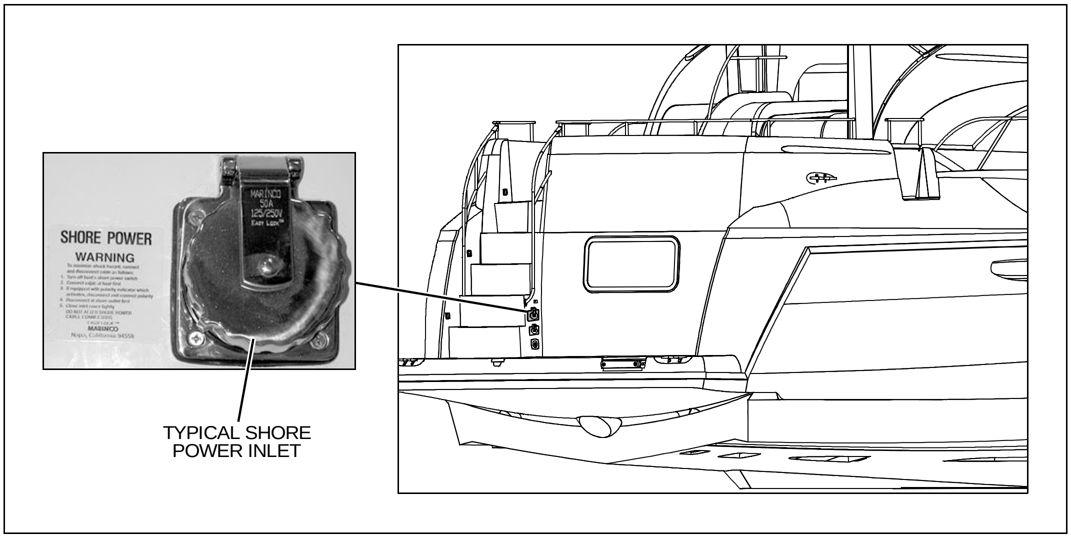
- This yacht is equipped with two 30 amp/110-volt shore power inlets or one 50-amp/220-volt shore power inlet.
- The 30-amp/110-volt shore power inlets provide 30-amp/110-volt power to each shore power master breaker.
- The 50-amp/220-volt shore power inlet provides 50-amp/110-volt power to both shore power master breakers.

Connecting To Shore Power

⚠ WARNING!

SHOCK & ELECTRICAL SYSTEM DAMAGE HAZARD!

- **Monitor the polarity indicator lights *EVERY TIME* you connect to shore power.**
- **If a reversed polarity light turns on when you are connecting to shore power, do *NOT* turn on the main breaker switches.**
- **Instead, *IMMEDIATELY* unplug the shore power cord (*ALWAYS* from the dockside outlet first) and alert marina management.**



1. Review all hazard information at the beginning of this section, *Shore Power.*
2. Turn ***Off*** all breakers and switches on the AC master panel.
3. Attach the shore power cord(s) to the yacht inlet(s) first, then to the dockside outlet(s).
4. Switch the "SHORE POWER 1 and/or SHORE POWER 2" master breakers ***On***.
5. Turn *On* the individual component breakers and line breakers as required.

Shore Power Cable Hoist (If Equipped) (50-amp-220-Volt Only)

- The shore power cable hoist allows you to easily feed out and reel in the shore power cable.
- ***Before*** using the shore power cable hoist, read the cable hoist manual.

Parallel Switch (If Equipped With Dual Shore Power)

NOTICE

- **When using the Parallel Switch do *NOT* exceed 30 total amps.**
- **The amperage of each component breaker is shown on the breaker itself.**
- **The voltage on each line can be read by viewing the voltmeter on the Shore Power AC panel.**

When only one dockside outlet is available, you can use the Parallel Switch to provide power to both lines.

1. Connect to shore power as described on the previous page.
2. Switch the Parallel Switch (transfers power from line 1 to line 2) ***On*** instead of the SHORE POWER 2 master breaker.
3. Turn ***On*** the individual component breakers as required.

Inverter Power (If Equipped)

- The inverter allows the batteries to supply AC power to some accessories when your yacht is not connected to shore power.
- Primary control is from the Inverter Remote Control Panel and redundant controls are on the inverter itself.
- Before using the inverter, read all instructions and cautionary markings on (1) the inverter, (2) the batteries, and (3) all appropriate sections of the inverter manual.
- Energize the AC system under inverter power by switching *ON* the inverter master breaker and pressing the *ON/OFF* switch on the inverter control panel.
- The inverter provides AC power *only* to the accessories on the AC panel.

Generator

⚠ DANGER!

CO
DANGER
CARBON MONOXIDE

CARBON MONOXIDE POISONING HAZARD!

Generators are a source of dangerous carbon monoxide gas (CO). Check the generator exhaust system for leaks *before* each use.

⚠ WARNING!

FIRE/EXPLOSION HAZARD!

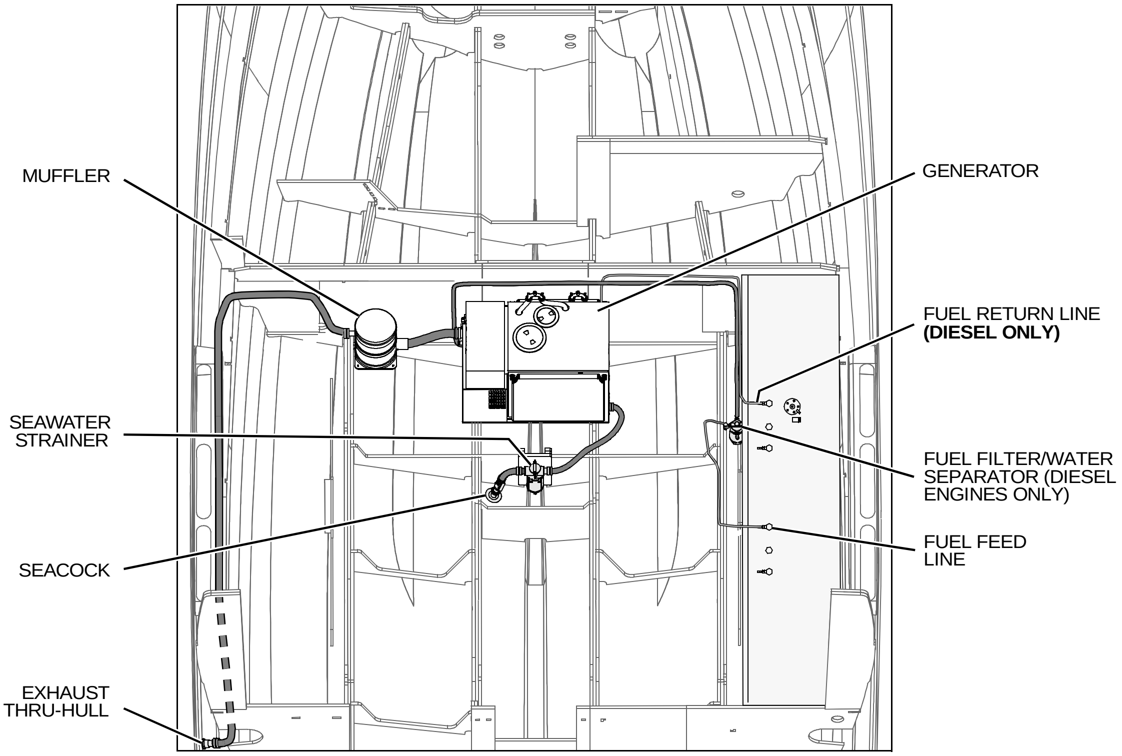
- **Use the bilge blowers for a minimum of four minutes *before* starting the generator.**
- **Leave the blowers on while the generator is running.**
- **Use of the blower system is *NOT a guarantee* that explosive fumes have been removed. *ALWAYS* use the 'sniff test' to check the bilge areas for fuel vapors.**
- **If you smell any fuel, do *NOT* start the generator.**
- **If the generator is already running, *IMMEDIATELY* shut *Off* the generator and *all* electrical accessories and investigate.**
- **Do *NOT* obstruct or modify the ventilation system.**

⚠ CAUTION

SYSTEM DAMAGE HAZARD!

- ***Always* make sure the generator's seawater intake seacock is *Open before* starting the generator, and remains open during running of the generator.**
- ***NEVER* use the generator starter for more than 30 seconds.**
- **If the generator does *NOT* start, wait at least 30 seconds *before* another start attempt is made.**
- **After starting the generator, wait for the generator to stabilize *before* turning *On* component breakers on the AC panel.**

GENERATOR LAYOUT


MUFFLER
SEAWATER STRAINER
SEACOCK
EXHAUST THRU-HULL
GENERATOR
FUEL RETURN LINE **(DIESEL ONLY)**
FUEL FILTER/WATER SEPARATOR (DIESEL ENGINES ONLY)
FUEL FEED LINE

- When your yacht is ***not*** connected to shore power, the generator can supply 110V/60Hz power.
- ***Before*** using the generator, read the generator operation manual for pre-start checks and break-in procedures.

Note the following about the generator:

- Polarity has been established in the installation of the generator, therefore the polarity lights will ***not*** function in this mode.
- Fuel to run the main generator is supplied from the starboard fuel tank.
- Periodically replace the filter on the generator to make sure it remains clean and free of debris.
- Diesel generators also have a fuel filter/water separator. Service instructions for the fuel filter/water separator are provided on the filter.
- The coolant mixture installed at the factory consists of equal parts of water and antifreeze (Ethylene Glycol).
- Check the generator's seawater strainer for leaks and/or debris ***before*** each use.
- Gauges are provided on the generator control panel. These gauges monitor the engine functions of your generator.

Starting the Generator

⚠ WARNING!

FIRE/EXPLOSION HAZARD!

- **Use the bilge blowers for a minimum of four minutes *before* starting the generator.**
- **Leave the blowers on while the generator is running.**
- **Use of the blower system is *NOT a guarantee* that explosive fumes have been removed. *ALWAYS* use the 'sniff test' to check the bilge areas for fuel vapors.**
- **If you smell any fuel, do *NOT* start the generator.**
- **If the generator is already running, *IMMEDIATELY* shut *Off* the generator and *all* electrical accessories and investigate.**
- **Do *NOT* obstruct or modify the ventilation system.**

⚠ CAUTION

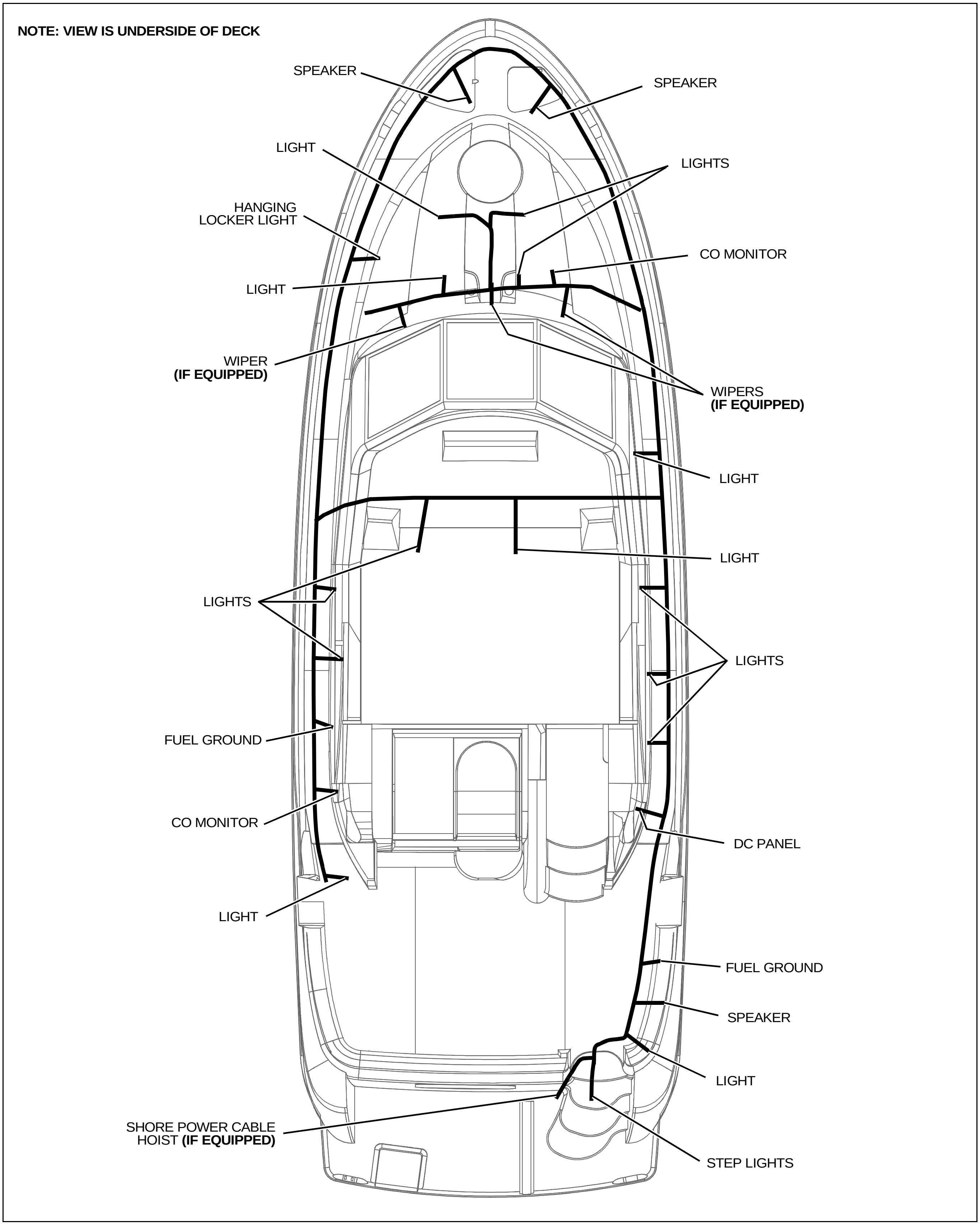
SYSTEM DAMAGE HAZARD!

- ***Always* make sure the generator’s seawater intake seacock is *Open before* starting the generator, and remains open during running of the generator.**
- ***NEVER* run the generator starter for more than 30 seconds. If the generator does not start, wait at least 30 seconds *before* trying again.**
- **After the generator starts, let the generator stabilize *before* turning *On* the component breakers on the AC panel.**

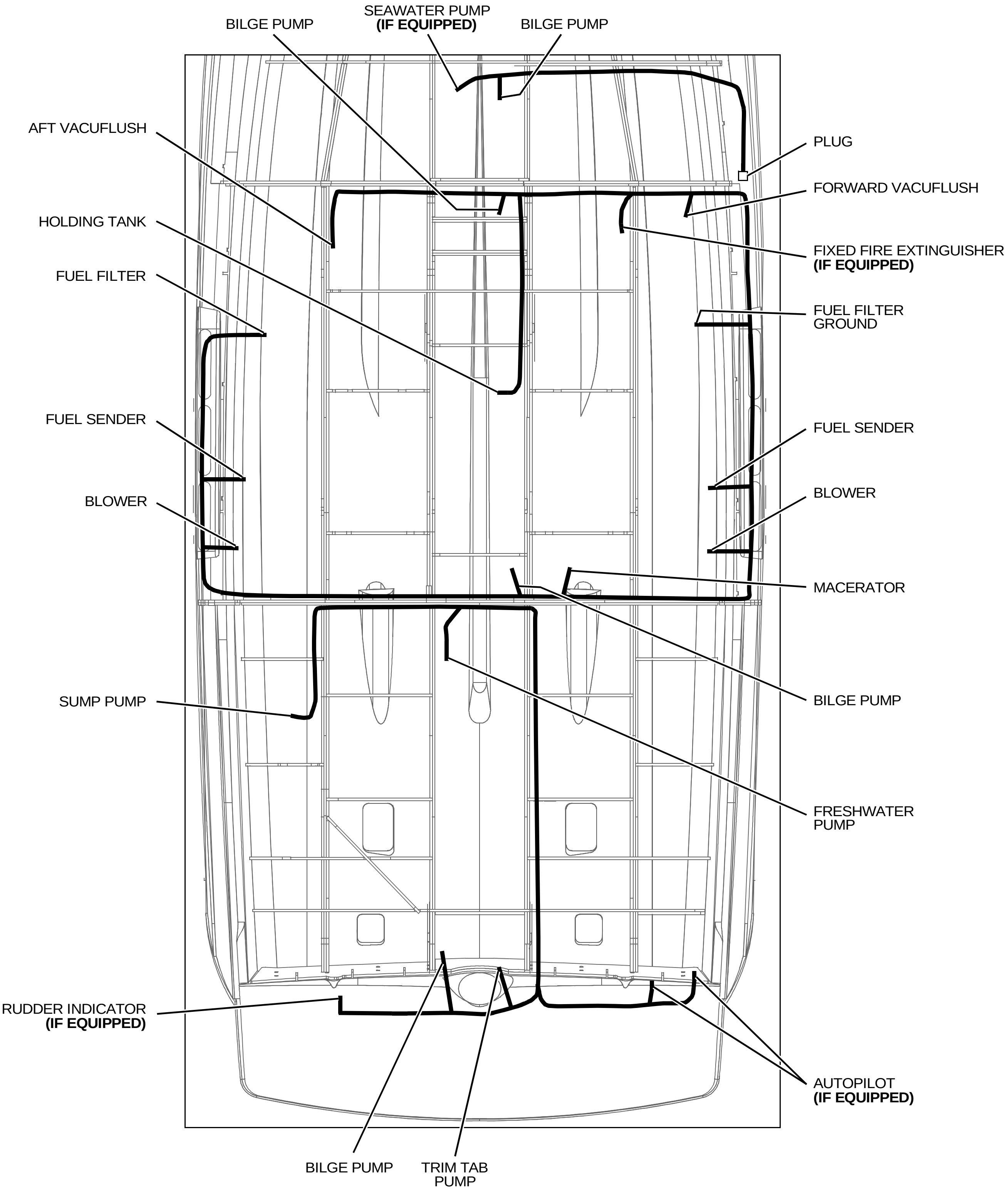
1. Run the bilge blowers for a minimum of four minutes *before* starting the generator.
2. Leave the blowers on while the generator is running unless your yacht is up to cruising speed.
3. ***Open*** the generator’s seacock valve ***before*** starting the generator. *Keep the seacock valve open while the generator is running.*
4. Refer to the generator manual for starting/stopping instructions.

Electrical Routings

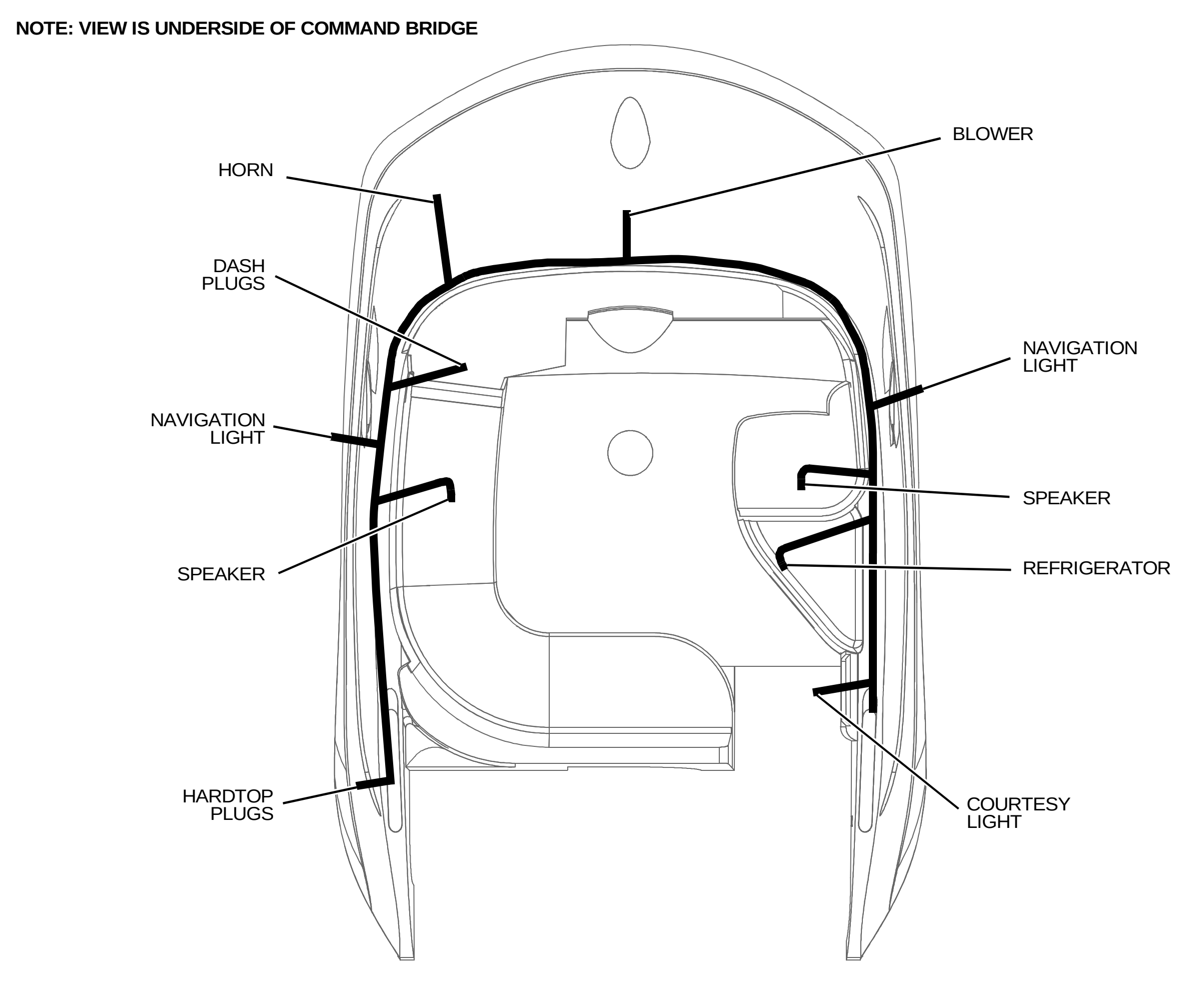
12-Volt DC Deck Electrical Harnesses


NOTE: VIEW IS UNDERSIDE OF DECK
SPEAKER
SPEAKER
LIGHT
LIGHTS
HANGING LOCKER LIGHT
CO MONITOR
LIGHT
WIPER (IF EQUIPPED)
WIPERS (IF EQUIPPED)
LIGHT
LIGHT
LIGHTS
LIGHTS
FUEL GROUND
CO MONITOR
DC PANEL
LIGHT
FUEL GROUND
SPEAKER
LIGHT
SHORE POWER CABLE HOIST (IF EQUIPPED)
STEP LIGHTS

12-Volt DC Hull Electrical System

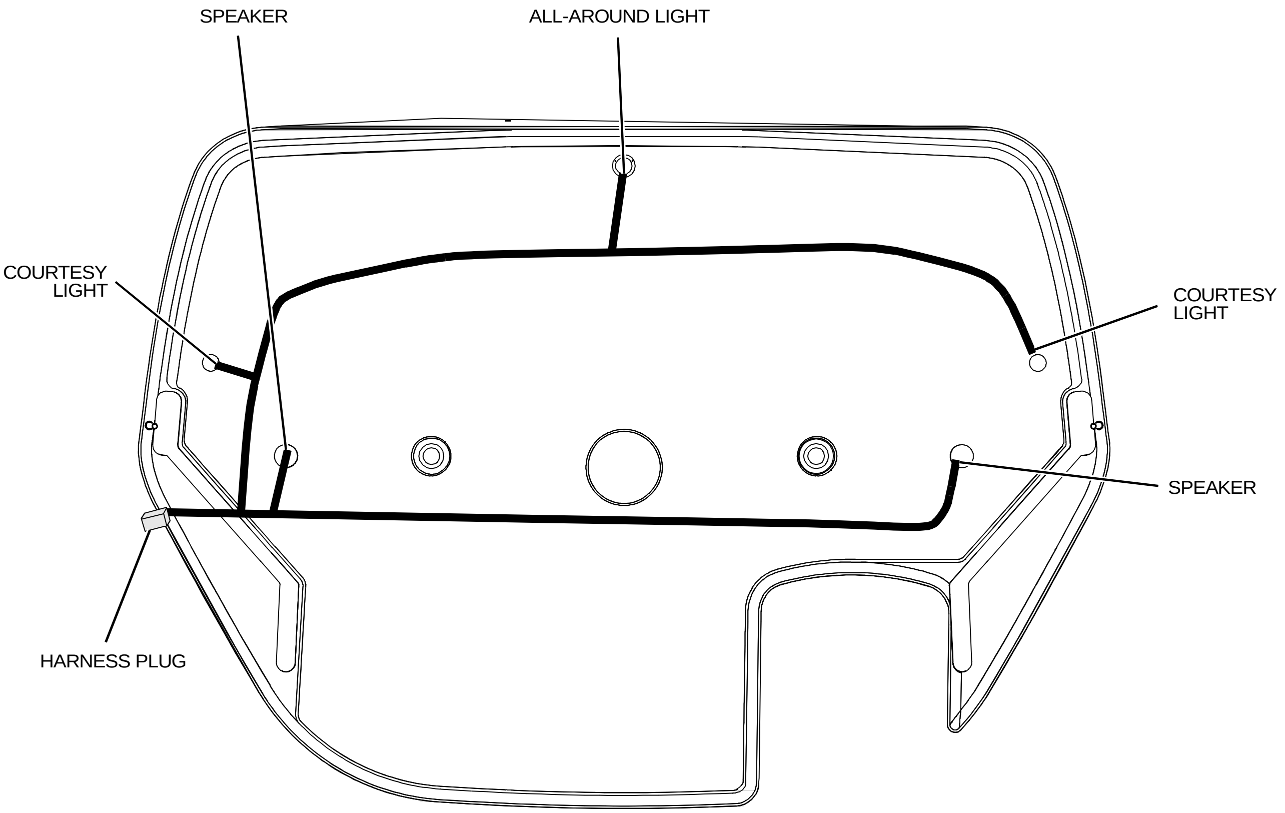

SEAWATER PUMP
(IF EQUIPPED)
BILGE PUMP
BILGE PUMP
AFT VACUFLUSH
PLUG
FORWARD VACUFLUSH
HOLDING TANK
FIXED FIRE EXTINGUISHER
(IF EQUIPPED)
FUEL FILTER
FUEL FILTER
GROUND
FUEL SENDER
FUEL SENDER
BLOWER
BLOWER
MACERATOR
BILGE PUMP
SUMP PUMP
FRESHWATER
PUMP
RUDDER INDICATOR
(IF EQUIPPED)
AUTOPILOT
(IF EQUIPPED)
BILGE PUMP
TRIM TAB
PUMP

Command Bridge Electrical Harnesses


NOTE: VIEW IS UNDERSIDE OF COMMAND BRIDGE
HORN
BLOWER
DASH PLUGS
NAVIGATION LIGHT
NAVIGATION LIGHT
SPEAKER
SPEAKER
REFRIGERATOR
HARDTOP PLUGS
COURTESY LIGHT

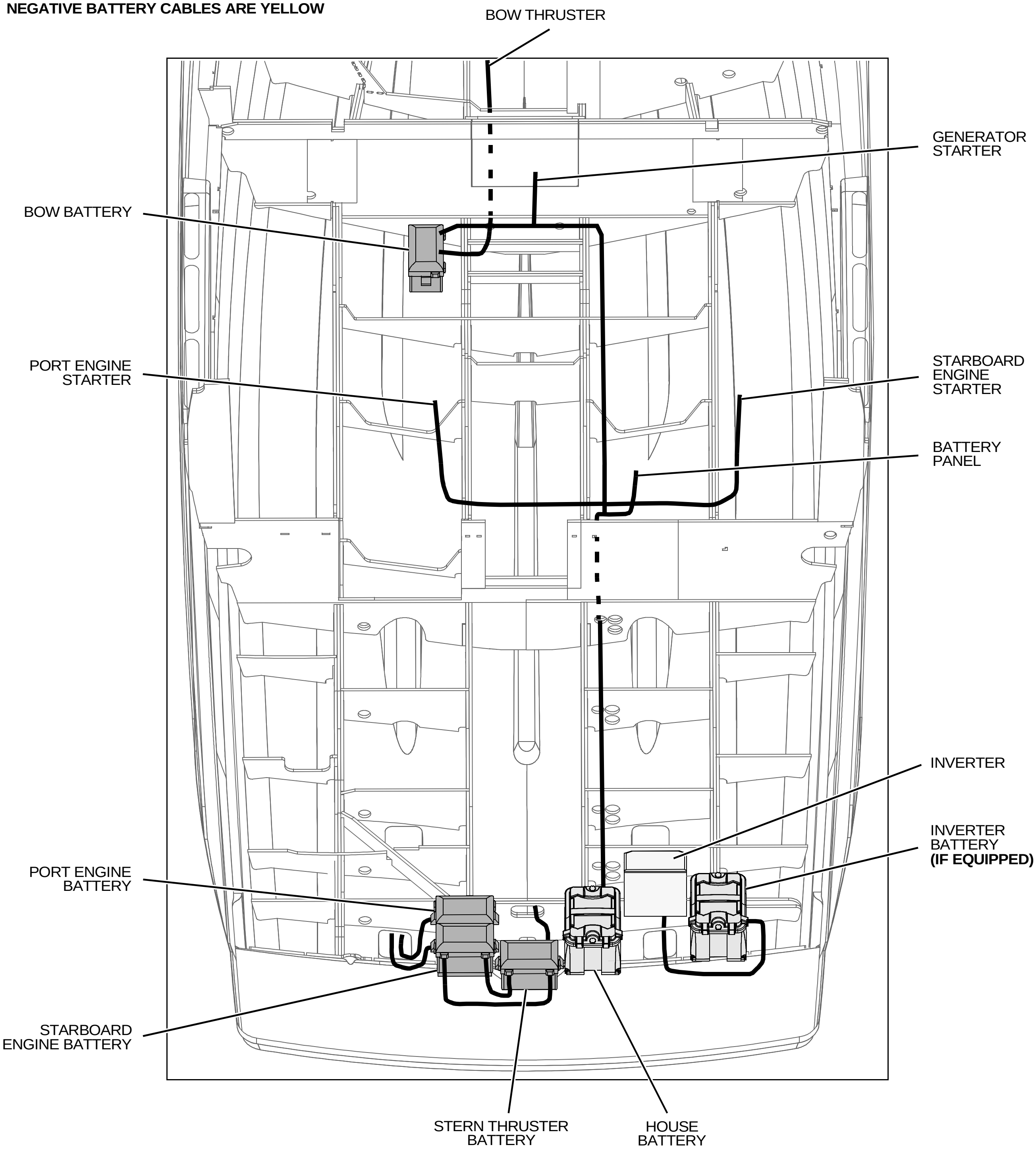
Hardtop Electrical Harness

NOTE: VIEW IS UNDERSIDE OF HARDTOP

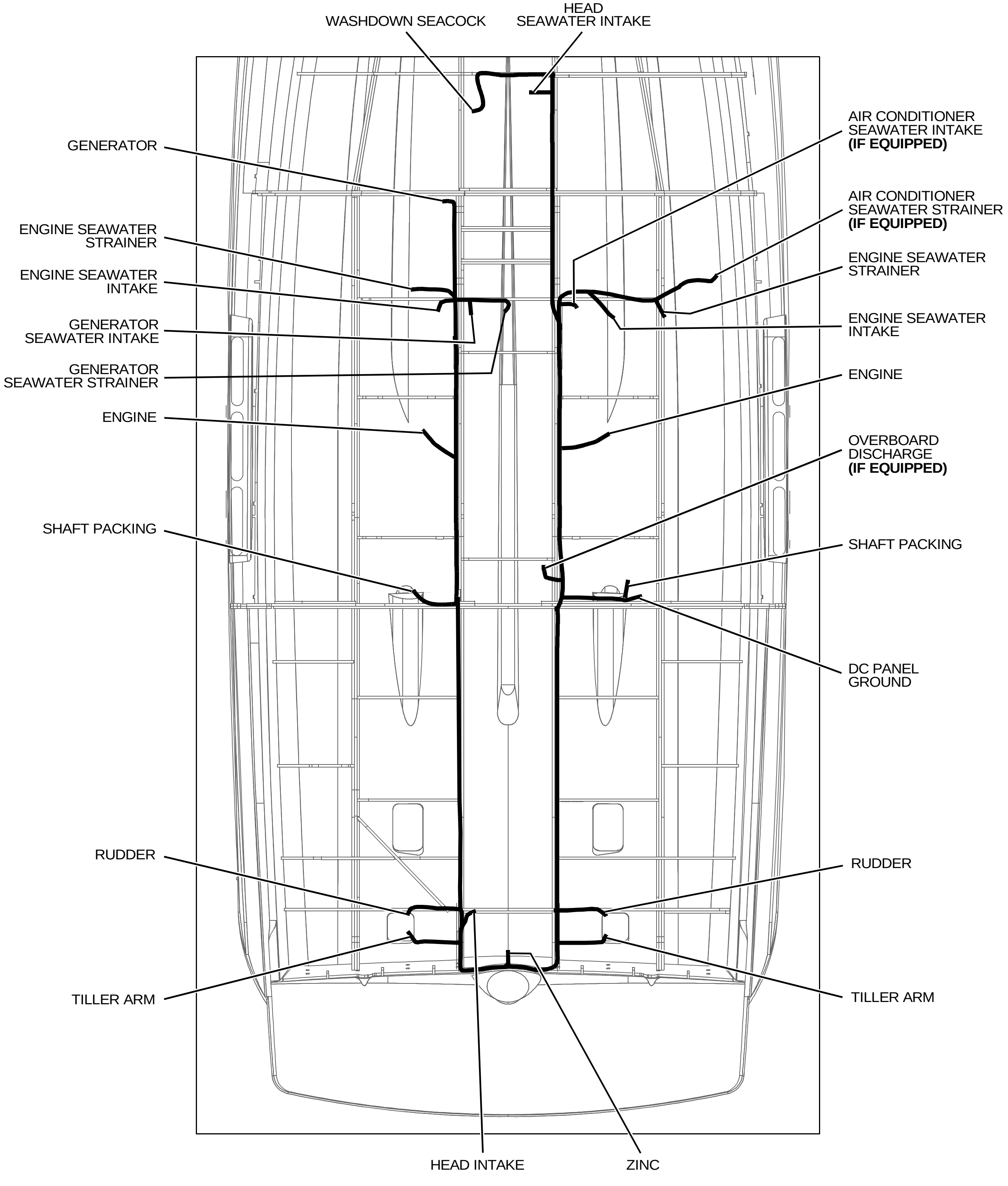

SPEAKER
ALL-AROUND LIGHT
COURTESY LIGHT
COURTESY LIGHT
SPEAKER
HARNESS PLUG

Battery System

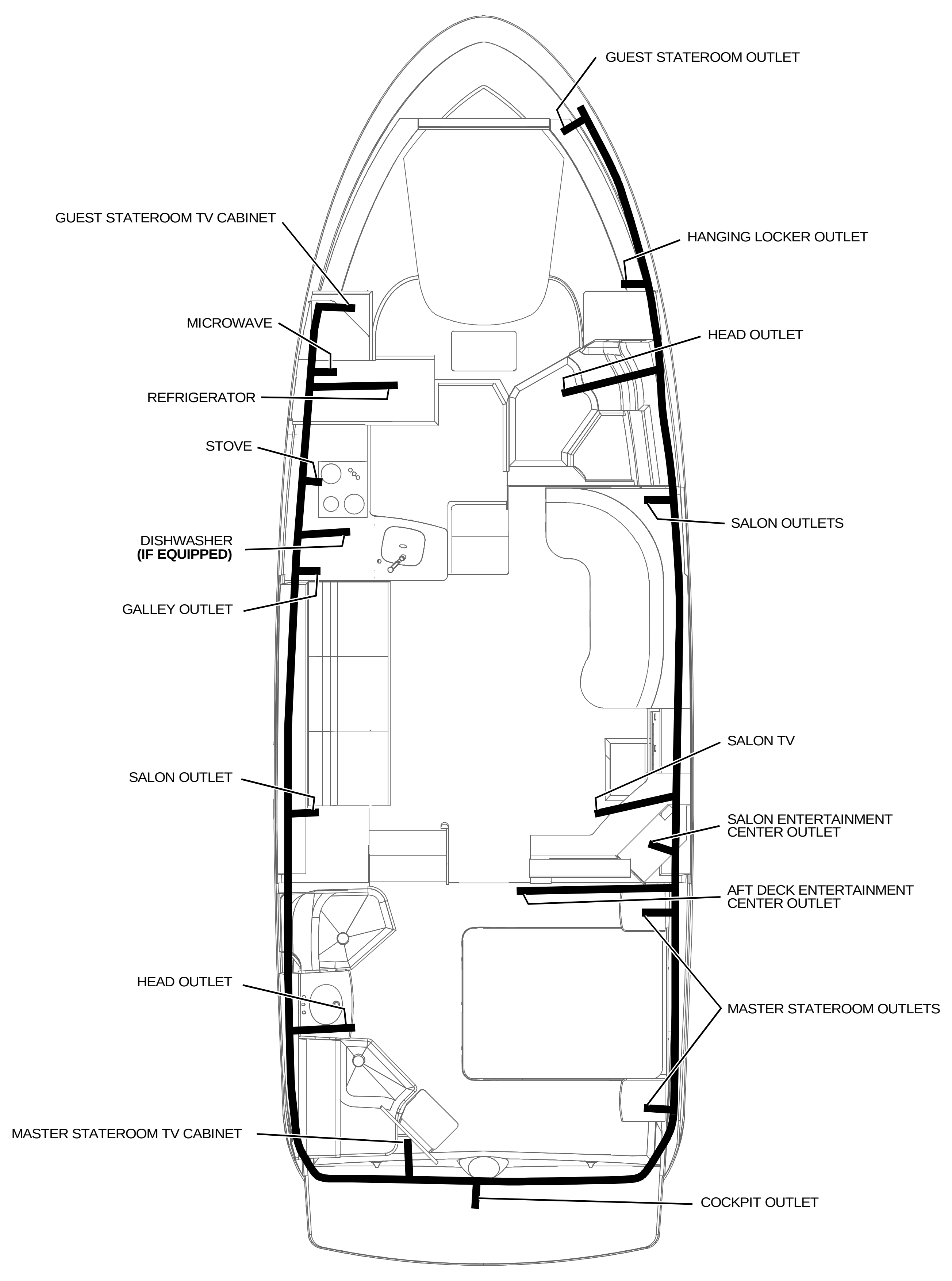
NOTES:
POSITIVE BATTERY CABLES ARE RED
NEGATIVE BATTERY CABLES ARE YELLOW


BOW THRUSTER
GENERATOR STARTER
BOW BATTERY
PORT ENGINE STARTER
STARBOARD ENGINE STARTER
BATTERY PANEL
INVERTER
INVERTER BATTERY **(IF EQUIPPED)**
PORT ENGINE BATTERY
STARBOARD ENGINE BATTERY
STERN THRUSTER BATTERY
HOUSE BATTERY

Bonding Harnesses

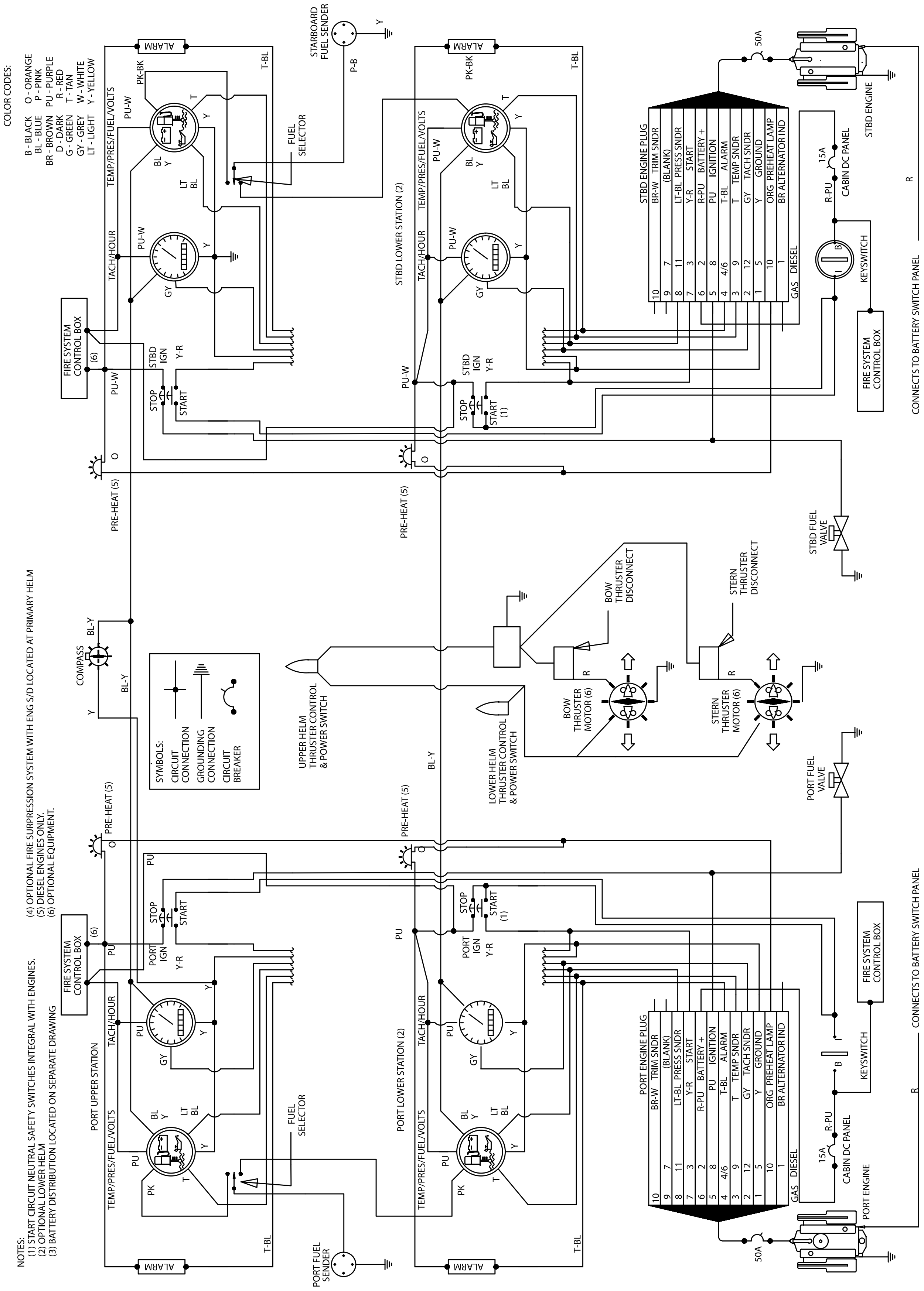

WASHDOWN SEACOCK
HEAD SEAWATER INTAKE
GENERATOR
AIR CONDITIONER SEAWATER INTAKE (IF EQUIPPED)
AIR CONDITIONER SEAWATER STRAINER (IF EQUIPPED)
ENGINE SEAWATER STRAINER
ENGINE SEAWATER INTAKE
ENGINE SEAWATER STRAINER
GENERATOR SEAWATER INTAKE
ENGINE SEAWATER INTAKE
GENERATOR SEAWATER STRAINER
ENGINE
ENGINE
OVERBOARD DISCHARGE (IF EQUIPPED)
SHAFT PACKING
SHAFT PACKING
DC PANEL GROUND
RUDDER
RUDDER
TILLER ARM
TILLER ARM
HEAD INTAKE
ZINC

110-Volt AC Electrical Harnesses

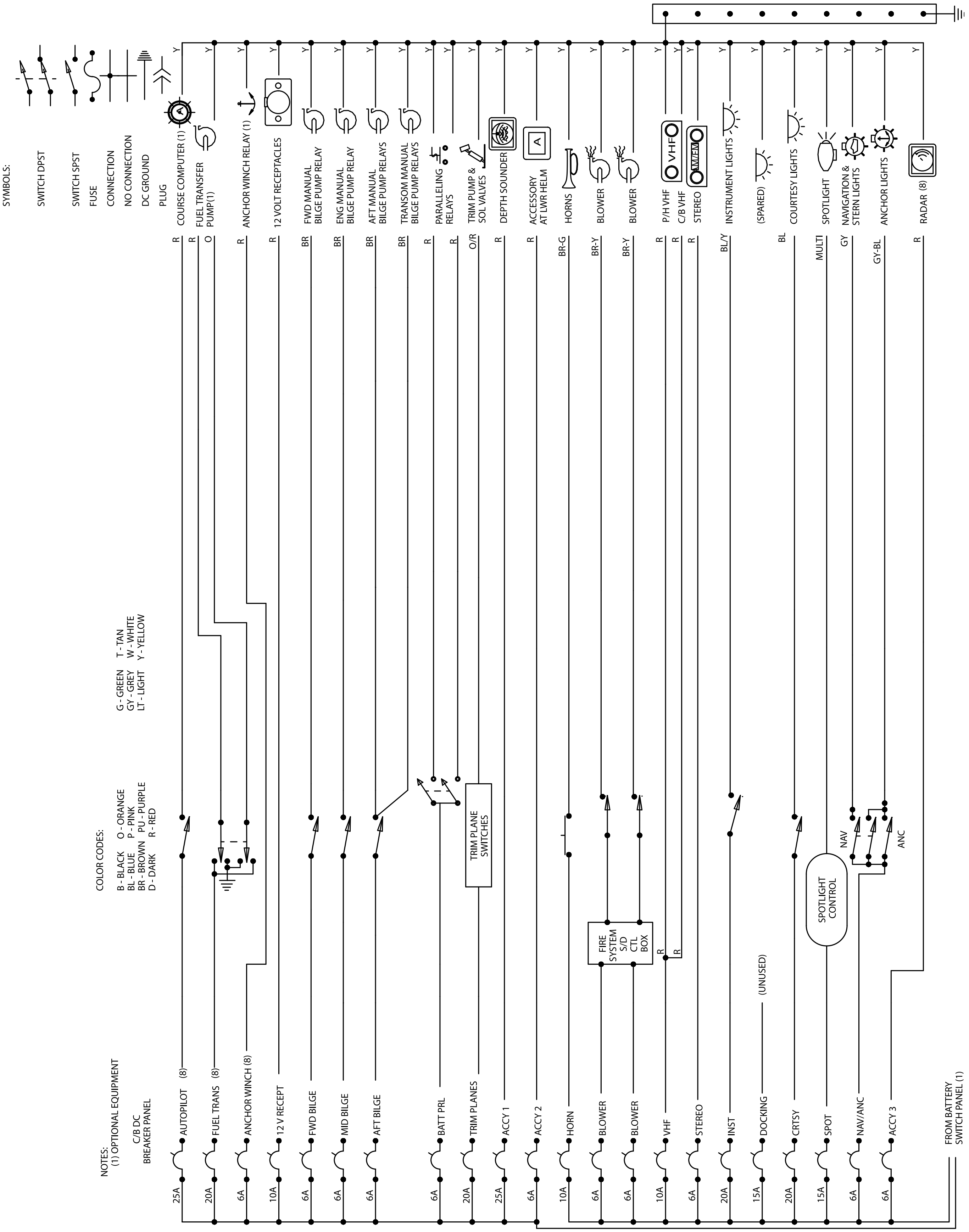

GUEST STATEROOM OUTLET
GUEST STATEROOM TV CABINET
HANGING LOCKER OUTLET
MICROWAVE
HEAD OUTLET
REFRIGERATOR
STOVE
SALON OUTLETS
DISHWASHER
(IF EQUIPPED)
GALLEY OUTLET
SALON TV
SALON OUTLET
SALON ENTERTAINMENT CENTER OUTLET
AFT DECK ENTERTAINMENT CENTER OUTLET
HEAD OUTLET
MASTER STATEROOM OUTLETS
MASTER STATEROOM TV CABINET
COCKPIT OUTLET

Wiring Diagrams

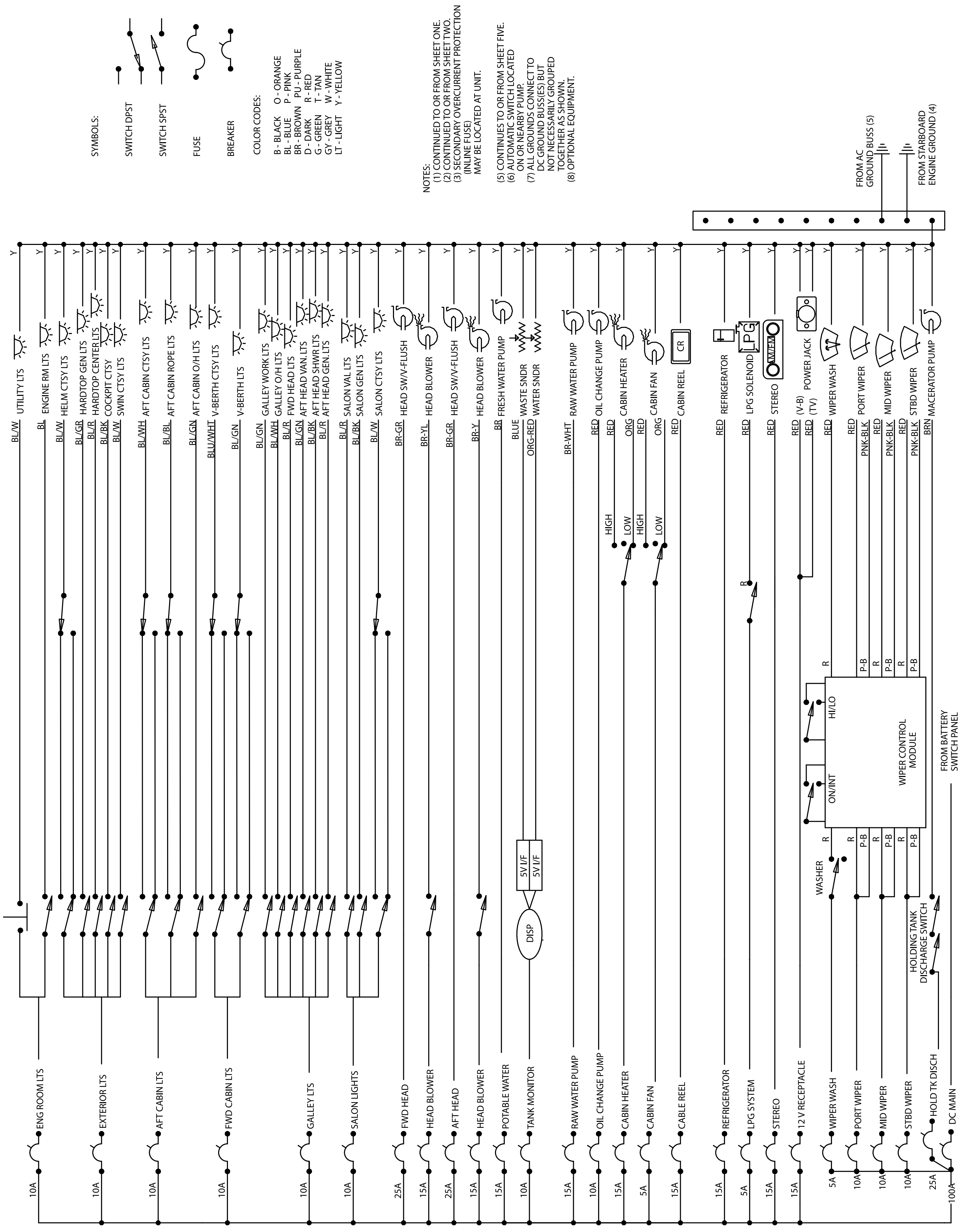
Engine Electrical System


COLOR CODES:
B - BLACK
BL - BLUE
BR - BROWN
D - DARK
G - GREEN
GY - GREY
LT - LIGHT
O - ORANGE
P - PINK
PU - PURPLE
R - RED
T - TAN
W - WHITE
Y - YELLOW
ALARM
T-BL
PK-BK
PU-W
T
Y
BL
Y
LT
BL
TEMP/PRES/FUEL/VOLTS
TACH/HOUR
GY
FIRE SYSTEM CONTROL BOX
(6)
STBD IGN
Y-R
STOP
START
START (1)
PU-W
O
PRE-HEAT (5)
STBD LOWER STATION (2)
STARBOARD FUEL SENDER
P-B
FUEL SELECTOR
STBD ENGINE PLUG
BR-W TRIM SNDR
(BLANK)
LT-BL PRESS SNDR
Y-R START
R-PU BATTERY +
PU IGNITION
T-BL ALARM
T TEMP SNDR
GY TACH SNDR
Y GROUND
ORG PREHEAT LAMP
BR ALTERNATOR IND
GAS DIESEL
10 9 8 7 6 5 4 3 2 1
7 11 3 2 8 4/6 9 12 5 10 1
50A
STBD ENGINE
15A
R-PU
CABIN DC PANEL
KEYSWITCH
B
I
R
CONNECTS TO BATTERY SWITCH PANEL
STBD FUEL VALVE
BOW THRUSTER DISCONNECT
STERN THRUSTER DISCONNECT
BOW THRUSTER MOTOR (6)
STERN THRUSTER MOTOR (6)
UPPER HELM THRUSTER CONTROL & POWER SWITCH
LOWER HELM THRUSTER CONTROL & POWER SWITCH
PORT FUEL VALVE
BL-Y
COMPASS
SYMBOLS:
CIRCUIT CONNECTION
GROUNDING CONNECTION
CIRCUIT BREAKER
(4) OPTIONAL FIRE SUPPRESSION SYSTEM WITH ENG S/D LOCATED AT PRIMARY HELM
(5) DIESEL ENGINES ONLY.
(6) OPTIONAL EQUIPMENT.
NOTES:
(1) START CIRCUIT NEUTRAL SAFETY SWITCHES INTEGRAL WITH ENGINES.
(2) OPTIONAL LOWER HELM
(3) BATTERY DISTRIBUTION LOCATED ON SEPARATE DRAWING
PORT UPPER STATION
PORT LOWER STATION (2)
PORT IGN
PU
PK
PORT FUEL SENDER
PORT ENGINE PLUG
PORT ENGINE

12-Volt DC Command Bridge Electrical System


SYMBOLS:
SWITCH DPST
SWITCH SPST
FUSE
CONNECTION
NO CONNECTION
DC GROUND
PLUG
COURSE COMPUTER (1)
FUEL TRANSFER PUMP(1)
ANCHOR WINCH RELAY (1)
12 VOLT RECEPTACLES
FWD MANUAL BILGE PUMP RELAY
ENG MANUAL BILGE PUMP RELAY
AFT MANUAL BILGE PUMP RELAYS
TRANSOM MANUAL BILGE PUMP RELAYS
PARALLELING RELAYS
TRIM PUMP & SOL VALVES
DEPTH SOUNDER
ACCESSORY AT LWR HELM
HORNS
BLOWER
BLOWER
P/H VHF
C/B VHF
STEREO
INSTRUMENT LIGHTS
(SPARED)
COURTESY LIGHTS
SPOTLIGHT
NAVIGATION & STERN LIGHTS
ANCHOR LIGHTS
RADAR (8)
VHF
AM/FM
Y
R
O
BR
O/R
BR-G
BR-Y
BL/Y
BL
MULTI
GY
GY-BL
COLOR CODES:
B - BLACK
BL - BLUE
BR - BROWN
D - DARK
O - ORANGE
P - PINK
PU - PURPLE
R - RED
G - GREEN
GY - GREY
LT - LIGHT
T - TAN
W - WHITE
Y - YELLOW
TRIM PLANE SWITCHES
FIRE SYSTEM S/D CTL BOX
(UNUSED)
SPOTLIGHT CONTROL
NAV
ANC
NOTES:
(1) OPTIONAL EQUIPMENT
C/B DC BREAKER PANEL
25A AUTOPILOT (8)
20A FUEL TRANS (8)
6A ANCHOR WINCH (8)
10A 12 V RECEPT
6A FWD BILGE
6A MID BILGE
6A AFT BILGE
6A BATT PRL
20A TRIM PLANES
25A ACCY 1
6A ACCY 2
10A HORN
6A BLOWER
6A BLOWER
10A VHF
6A STEREO
20A INST
15A DOCKING
20A CRTSY
15A SPOT
6A NAV/ANC
6A ACCY 3
FROM BATTERY SWITCH PANEL (1)

12-Volt DC Cabin Electrical System



SYMBOLS:

- SWITCH DPST
- SWITCH SPST
- FUSE
- BREAKER

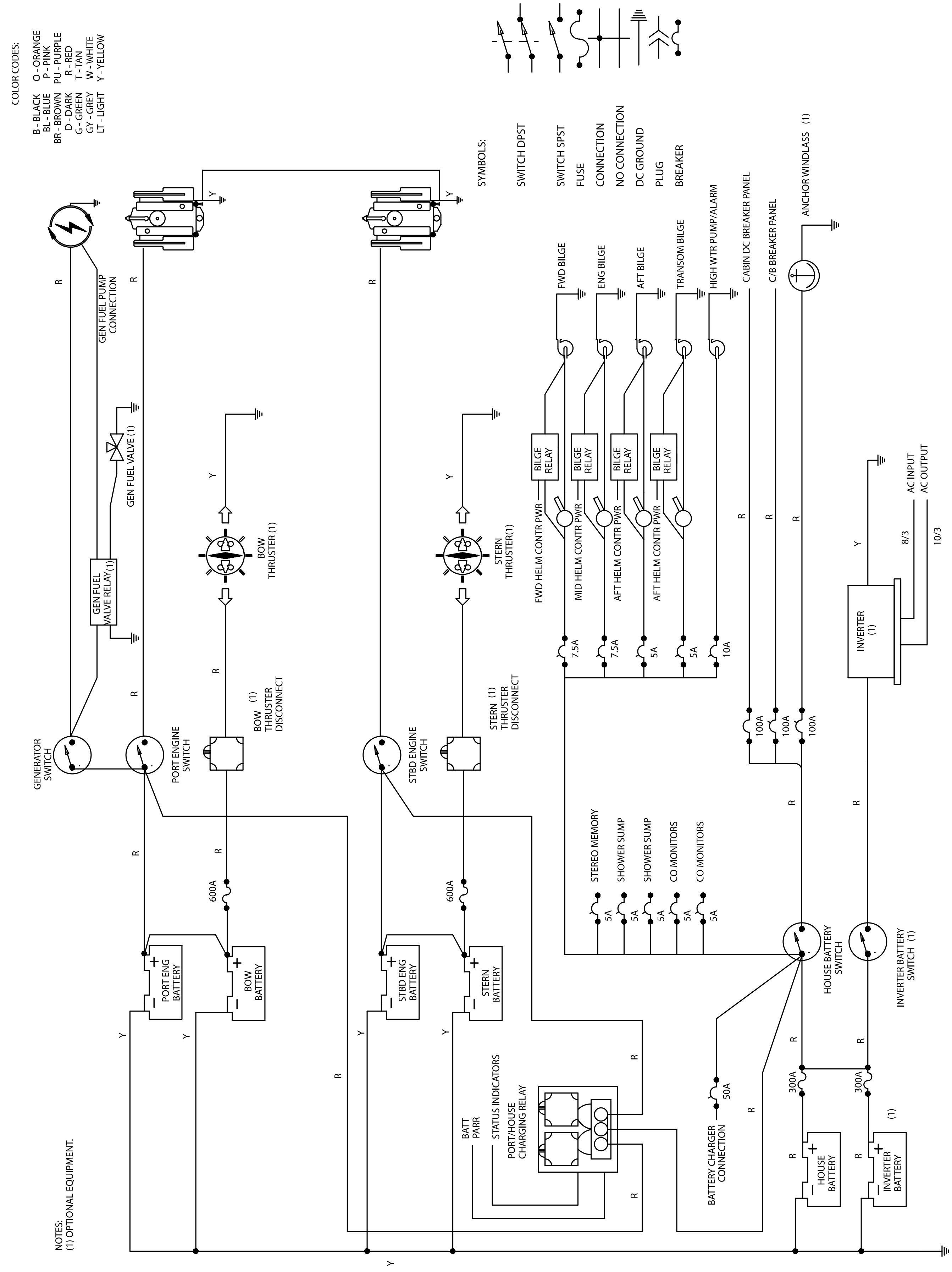
COLOR CODES:

B - BLACK	O - ORANGE
BL - BLUE	P - PINK
BR - BROWN	PU - PURPLE
D - DARK	R - RED
G - GREEN	T - TAN
GY - GREY	W - WHITE
LT - LIGHT	Y - YELLOW

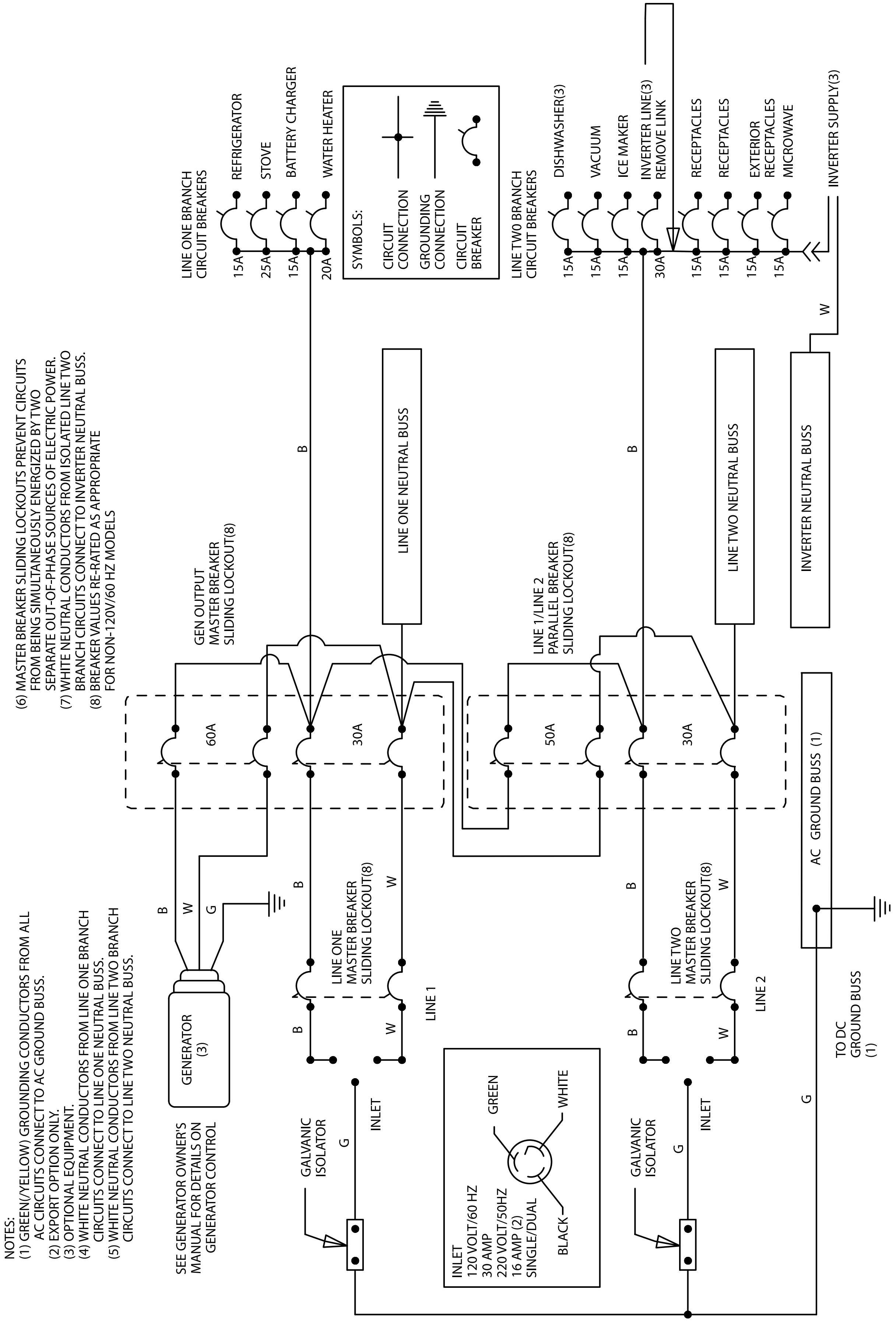
NOTES:
(1) CONTINUED TO OR FROM SHEET ONE.
(2) CONTINUED TO OR FROM SHEET TWO.
(3) SECONDARY OVERCURRENT PROTECTION (INLINE FUSE) MAY BE LOCATED AT UNIT.
(5) CONTINUES TO OR FROM SHEET FIVE.
(6) AUTOMATIC SWITCH LOCATED ON OR NEAR BY PUMP.
(7) ALL GROUNDS CONNECT TO DC GROUND BUSS(ES) BUT NOT NECESSARILY GROUPED TOGETHER AS SHOWN.
(8) OPTIONAL EQUIPMENT.

FROM AC GROUND BUSS (5)
FROM STARBOARD ENGINE GROUND (4)
Y
BL/W UTILITY LTS
BL ENGINE RM LTS
BL/W HELM CTSY LTS
BL/GR HARDTOP GEN LTS
BL/R HARDTOP CENTER LTS
BL/BK COCKPIT CTSY
BL/W SWIN CTSY LTS
BL/WH AFT CABIN CTSY LTS
BL/BL AFT CABIN ROPE LTS
BL/GN AFT CABIN O/H LTS
BLU/WHT V-BERTH CTSY LTS
BL/GN V-BERTH LTS
BL/GN GALLEY WORK LTS
BL/WH GALLEY O/H LTS
BL/R FWD HEAD LTS
BL/GN AFT HEAD VAN LTS
BL/BK AFT HEAD SHWR LTS
BL/R AFT HEAD GEN. LTS
BL/R SALON VAL LTS
BL/BK SALON GEN LTS
BL/W SALON CTSY LTS
BR-GR HEAD SW/V-FLUSH
BR-YL HEAD BLOWER
BR-GR HEAD SW/V-FLUSH
BR-Y HEAD BLOWER
BR FRESH WATER PUMP
BLUE WASTE SNDR
ORG-RED WATER SNDR
BR-WHT RAW WATER PUMP
RED OIL CHANGE PUMP
RED CABIN HEATER
ORG
RED CABIN FAN
ORG
RED CABIN REEL
CR
RED REFRIGERATOR
RED LPG SOLENOID
LPG
RED STEREO
AM/FM
RED (V-B)
RED (TV) POWER JACK
RED WIPER WASH
RED PNK-BLK PORT WIPER
RED PNK-BLK MID WIPER
RED PNK-BLK STBD WIPER
BRN MACERATOR PUMP
HIGH
LOW
HIGH
LOW
R
5V I/F
5V I/F
DISP
WASHER
R
P-B
HI/LO
ON/INT
WIPER CONTROL MODULE
HOLDING TANK DISCHARGE SWITCH
FROM BATTERY SWITCH PANEL
10A ENG ROOM LTS
10A EXTERIOR LTS
10A AFT CABIN LTS
10A FWD CABIN LTS
10A GALLEY LTS
10A SALON LIGHTS
25A FWD HEAD
15A HEAD BLOWER
25A AFT HEAD
15A HEAD BLOWER
15A POTABLE WATER
10A TANK MONITOR
15A RAW WATER PUMP
10A OIL CHANGE PUMP
15A CABIN HEATER
5A CABIN FAN
15A CABLE REEL
15A REFRIGERATOR
5A LPG SYSTEM
15A STEREO
15A 12 V RECEPTACLE
5A WIPER WASH
10A PORT WIPER
10A MID WIPER
10A STBD WIPER
25A HOLD TK DISCH
100A DC MAIN

12-Volt DC Auxiliary Electrical System


COLOR CODES:
B - BLACK
BL - BLUE
BR - BROWN
D - DARK
G - GREEN
GY - GREY
LT - LIGHT
O - ORANGE
P - PINK
PU - PURPLE
R - RED
T - TAN
W - WHITE
Y - YELLOW
SYMBOLS:
SWITCH DPST
SWITCH SPST
FUSE
CONNECTION
NO CONNECTION
DC GROUND
PLUG
BREAKER
Y
Y
R
GEN FUEL PUMP CONNECTION
R
R
GEN FUEL VALVE (1)
GEN FUEL VALVE RELAY (1)
R
GENERATOR SWITCH
PORT ENGINE SWITCH
Y
BOW THRUSTER (1)
R
BOW THRUSTER DISCONNECT (1)
Y
STERN THRUSTER(1)
STBD ENGINE SWITCH
STERN THRUSTER DISCONNECT (1)
R
R
600A
600A
PORT ENG BATTERY
BOW BATTERY
STBD ENG BATTERY
STERN BATTERY
Y
Y
Y
Y
R
Y
FWD BILGE
ENG BILGE
AFT BILGE
TRANSOM BILGE
HIGH WTR PUMP/ALARM
CABIN DC BREAKER PANEL
C/B BREAKER PANEL
ANCHOR WINDLASS (1)
BILGE RELAY
BILGE RELAY
BILGE RELAY
BILGE RELAY
FWD HELM CONTR PWR
MID HELM CONTR PWR
AFT HELM CONTR PWR
AFT HELM CONTR PWR
7.5A
7.5A
5A
5A
10A
R
R
R
Y
100A
100A
100A
INVERTER (1)
AC INPUT
AC OUTPUT
8/3
10/3
R
R
STEREO MEMORY
SHOWER SUMP
SHOWER SUMP
CO MONITORS
CO MONITORS
5A
5A
5A
5A
5A
HOUSE BATTERY SWITCH
INVERTER BATTERY SWITCH (1)
R
R
R
R
300A
300A
(1)
R
R
HOUSE BATTERY
INVERTER BATTERY
50A
BATTERY CHARGER CONNECTION
R
BATT PARR
STATUS INDICATORS
PORT/HOUSE CHARGING RELAY
NOTES:
(1) OPTIONAL EQUIPMENT.

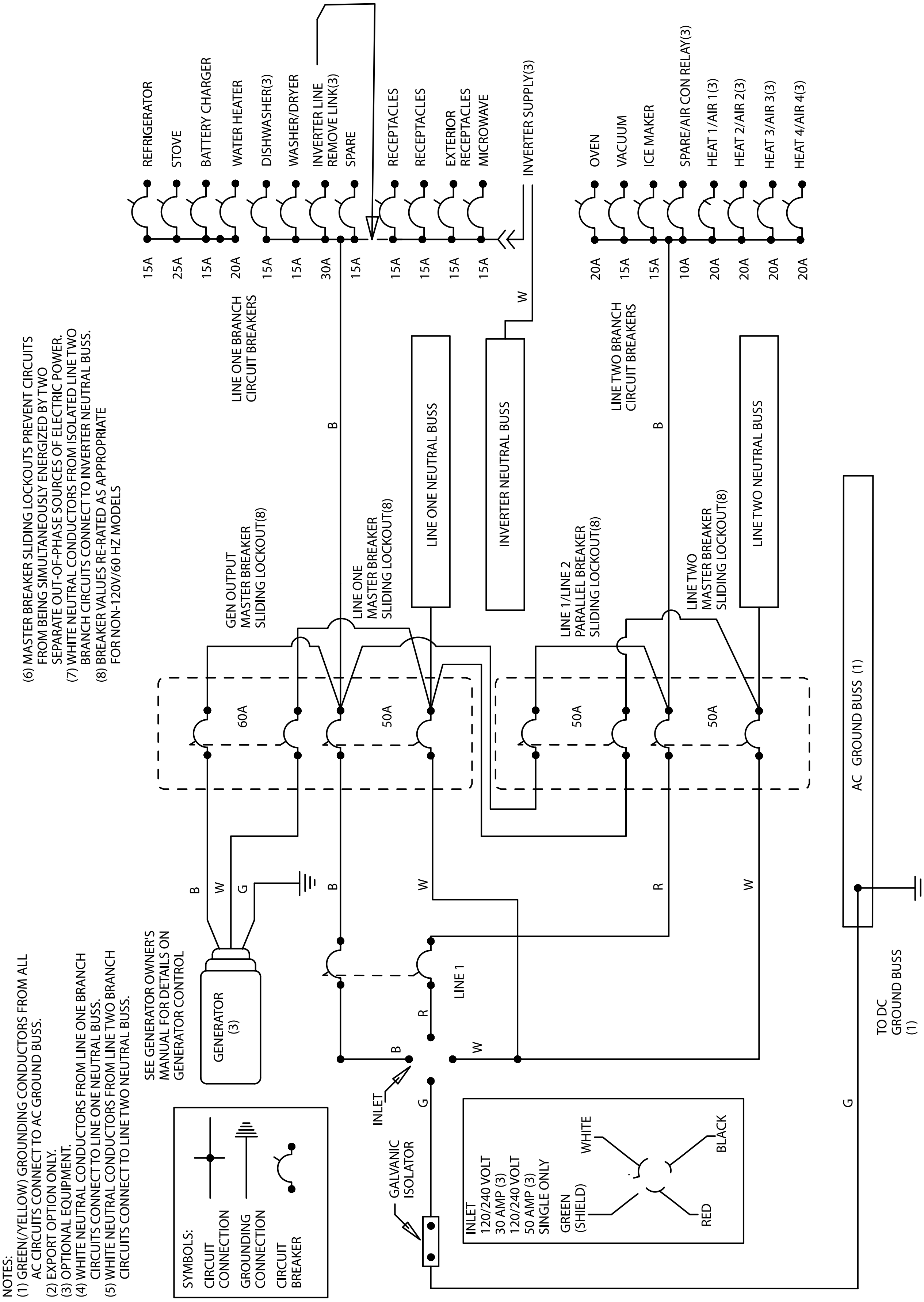
110-Volt AC Electrical System


LINE ONE BRANCH CIRCUIT BREAKERS
15A REFRIGERATOR
25A STOVE
15A BATTERY CHARGER
20A WATER HEATER
SYMBOLS:
CIRCUIT CONNECTION
GROUNDING CONNECTION
CIRCUIT BREAKER
LINE TW0 BRANCH CIRCUIT BREAKERS
15A DISHWASHER(3)
15A VACUUM
15A ICE MAKER
30A INVERTER LINE(3) REMOVE LINK
15A RECEPTACLES
15A RECEPTACLES
15A EXTERIOR RECEPTACLES
15A MICROWAVE
INVERTER SUPPLY(3)
W
B
B
LINE ONE NEUTRAL BUSS
LINE TWO NEUTRAL BUSS
INVERTER NEUTRAL BUSS
GEN OUTPUT MASTER BREAKER SLIDING LOCKOUT(8)
LINE 1/LINE 2 PARALLEL BREAKER SLIDING LOCKOUT(8)
60A
30A
50A
30A
AC GROUND BUSS (1)
B
W
G
B
W
B
W
LINE ONE MASTER BREAKER SLIDING LOCKOUT(8)
LINE TWO MASTER BREAKER SLIDING LOCKOUT(8)
LINE 1
LINE 2
B
W
B
W
GENERATOR (3)
TO DC GROUND BUSS (1)
G
INLET
INLET
GALVANIC ISOLATOR
G
GALVANIC ISOLATOR
G
GREEN
WHITE
BLACK
INLET
120 VOLT/60 HZ
30 AMP
220 VOLT/50HZ
16 AMP (2)
SINGLE/DUAL

SEE GENERATOR OWNER'S MANUAL FOR DETAILS ON GENERATOR CONTROL

NOTES:
(1) GREEN(/YELLOW) GROUNDING CONDUCTORS FROM ALL AC CIRCUITS CONNECT TO AC GROUND BUSS.
(2) EXPORT OPTION ONLY.
(3) OPTIONAL EQUIPMENT.
(4) WHITE NEUTRAL CONDUCTORS FROM LINE ONE BRANCH CIRCUITS CONNECT TO LINE ONE NEUTRAL BUSS.
(5) WHITE NEUTRAL CONDUCTORS FROM LINE TWO BRANCH CIRCUITS CONNECT TO LINE TWO NEUTRAL BUSS.
(6) MASTER BREAKER SLIDING LOCKOUTS PREVENT CIRCUITS FROM BEING SIMULTANEOUSLY ENERGIZED BY TWO SEPARATE OUT-OF-PHASE SOURCES OF ELECTRIC POWER.
(7) WHITE NEUTRAL CONDUCTORS FROM ISOLATED LINE TWO BRANCH CIRCUITS CONNECT TO INVERTER NEUTRAL BUSS.
(8) BREAKER VALUES RE-RATED AS APPROPRIATE FOR NON-120V/60 HZ MODELS

110/220-Volt AC Electrical System (If Equipped)


REFRIGERATOR 15A
STOVE 25A
BATTERY CHARGER 15A
WATER HEATER 20A
DISHWASHER(3) 15A
WASHER/DRYER 15A
INVERTER LINE REMOVE LINK(3) 30A
SPARE 15A
RECEPTACLES 15A
RECEPTACLES 15A
EXTERIOR RECEPTACLES 15A
MICROWAVE 15A
INVERTER SUPPLY(3)
W
OVEN 20A
VACUUM 15A
ICE MAKER 15A
SPARE/AIR CON RELAY(3) 10A
HEAT 1/AIR 1(3) 20A
HEAT 2/AIR 2(3) 20A
HEAT 3/AIR 3(3) 20A
HEAT 4/AIR 4(3) 20A
LINE ONE BRANCH CIRCUIT BREAKERS
B
LINE ONE NEUTRAL BUSS
INVERTER NEUTRAL BUSS
LINE TWO BRANCH CIRCUIT BREAKERS
B
LINE TWO NEUTRAL BUSS
GEN OUTPUT MASTER BREAKER SLIDING LOCKOUT(8)
LINE ONE MASTER BREAKER SLIDING LOCKOUT(8)
LINE 1/LINE 2 PARALLEL BREAKER SLIDING LOCKOUT(8)
LINE TWO MASTER BREAKER SLIDING LOCKOUT(8)
60A
50A
50A
50A
AC GROUND BUSS (1)
B
W
G
B
W
R
W
GENERATOR (3)
SEE GENERATOR OWNER'S MANUAL FOR DETAILS ON GENERATOR CONTROL
LINE 1
R
B
W
INLET
G
TO DC GROUND BUSS (1)
G
GALVANIC ISOLATOR
INLET 120/240 VOLT 30 AMP (3) 120/240 VOLT 50 AMP (3) SINGLE ONLY
WHITE
BLACK
GREEN (SHIELD)
RED
SYMBOLS:
CIRCUIT CONNECTION
GROUNDING CONNECTION
CIRCUIT BREAKER

NOTES:
(1) GREEN(/YELLOW) GROUNDING CONDUCTORS FROM ALL AC CIRCUITS CONNECT TO AC GROUND BUSS.
(2) EXPORT OPTION ONLY.
(3) OPTIONAL EQUIPMENT.
(4) WHITE NEUTRAL CONDUCTORS FROM LINE ONE BRANCH CIRCUITS CONNECT TO LINE ONE NEUTRAL BUSS.
(5) WHITE NEUTRAL CONDUCTORS FROM LINE TWO BRANCH CIRCUITS CONNECT TO LINE TWO NEUTRAL BUSS.
(6) MASTER BREAKER SLIDING LOCKOUTS PREVENT CIRCUITS FROM BEING SIMULTANEOUSLY ENERGIZED BY TWO SEPARATE OUT-OF-PHASE SOURCES OF ELECTRIC POWER.
(7) WHITE NEUTRAL CONDUCTORS FROM ISOLATED LINE TWO BRANCH CIRCUITS CONNECT TO INVERTER NEUTRAL BUSS.
(8) BREAKER VALUES RE-RATED AS APPROPRIATE FOR NON-120V/60 HZ MODELS

Important Records

Selling Dealer

Name Of Dealership

Address

Phone/FAX/E-mail

Sales Manager

Service Manager

Engines

Manufacturer
Model Name/Number

Port Engine Serial Number
Starboard Engine Serial Number

Oil Type/SAE
Quarts per Engine
Filter Type

Propellers

Manufacturer
Pitch

Model Number

Generator

Manufacturer
Model Name/Number

Serial Number

Oil Type/SAE
Quarts
Filter Type

Fuel System

Fuel Capacity
Filter Type

Plumbing

Freshwater Tank Capacity
Waste Holding Tank Capacity

Key Numbers

Cabin
Ignition

Other
Other

Electronics

Manufacturer
Model Name/Number

Serial Number

Manufacturer
Model Name/Number

Serial Number

Manufacturer
Model Name/Number

Serial Number

Manufacturer
Model Name/Number

Serial Number

Manufacturer
Model Name/Number

Serial Number

Manufacturer
Model Name/Number

Serial Number

Float Plan

Before going boating, fill out a copy of this float plan (or similar) and leave it with a ***reliable*** person whom you can depend on to contact the Coast Guard or other rescue organization, if you do not return as scheduled.

Description of Boat

Registration/Documentation Number

Length	Make	Type

Hull Color	Trim Color

Fuel Capacity	Engine Type	Number of Engines

Distinguishing Features

Distinguishing Features

Operator of Boat

Full Name

Male or Female	Age	Health

Address

Address

Phone/FAX/E-mail

Operator’s Experience

Persons Onboard

Full Name

Age	Health	Phone Number

Full Name

Age	Health	Phone Number

Full Name

Age	Health	Phone Number

Full Name

Age	Health	Phone Number

Full Name

Age	Health	Phone Number

Full Name

Age	Health	Phone Number

Full Name

Age	Health	Phone Number

Full Name

Age	Health	Phone Number

Full Name

Age	Health	Phone Number

Survival Equipment

Number of PFDs	Flares (Yes/No)	Mirror (yes or no)
Smoke Signals (Yes/No)	Flashlight (Yes/No)	Food (Yes/No)
Water (Yes/No)	Anchor (Yes/No)	Raft/Dinghy (Yes/No)
Paddles (Yes/No)	EPIRB (Yes/No)	Other
Other	Other	Other
Marine Radio (Yes/No)	Type	Frequencies

Vehicle Description

Make	Model
Color	License Number

Where is the Vehicle Parked?

Trip Expectations

Departing From

Departure Date	Departure Time

Stopover 1

Arrive No Later Than: Date	Arrive No Later Than: Time

Stopover 2

Arrive No Later Than: Date	Arrive No Later Than: Time

Stopover 3

Arrive No Later Than: Date	Arrive No Later Than: Time

Stopover 4

Arrive No Later Than: Date	Arrive No Later Than: Time

Stopover 5

Arrive No Later Than: Date	Arrive No Later Than: Time

Stopover 6

Arrive No Later Than: Date	Arrive No Later Than: Time

Final Destination Port (If Different Than Home Port)

Arrive No Later Than: Date	Arrive No Later Than: Time

If not returned by the date and time listed above, call the Coast Guard or other local authority.

Coast Guard Phone Number

Local Authority Phone Number

Owner’s Notes

MERIDIAN™
YACHTS

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www.meridian-yachts.com | part # 1783235